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\$18 to \$50 a Week!*

*Here's how  
I did it*

by S. J. E.  
(NAME AND ADDRESS  
SENT UPON REQUEST)



"I had an \$18 a week job in a shoe factory but I wanted to make more money and continue my education. I read about Radio's opportunities and started training at home for them."



"The training National Radio Institute gave me was so practical I was soon ready to make \$5 to \$10 a week in spare time servicing Radio sets. This helped pay for my N. R. I. Course and College education."



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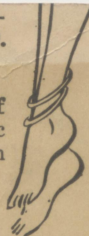
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# MECANICA

by

Frank Edward Arnold

(Author of "City of Machines," "The Twilight People," etc.)

The world of the Thirtieth Century was a world of monstrous mechanical confusion. Kellogg's time explorers were trapped in a jungle of man-hunting machines!

## CHAPTER I

"**W**HAT did you mean, Kellogg, by 'different worlds'? Was it just a metaphor, or were you hinting at something?"

Dr. Kellogg, flushed and a little excited at being the lion of the occasion, glanced with pleased surprise at Lyle, the speaker in the big arm-chair, and at the ring of friendly, interested faces about him. A precise, academic, self-sufficient man, he had realized rather late in life that social success is as valuable to the man of science as to any other. Without the backing of these men, whom at first he had met rather against his will, he would never have made the Time Expedition on which he had set his heart. Enjoying this new sensation, he flourished his pince-nez with a nervous little gesture and beamed round.

"The words slipped out inadvertently during my speech, gentlemen," he addressed the well-dined and wine members of the Scientific Exploration Society. "Frankly, I had not meant to speak of it, for the memory of what I saw is too terrible. But our friend Pascoe brought it up. What a magnificent speech that was!

What a magnificent picture he drew of the triumphant civilization of the twenty-fifth century! I cannot blame him or my other colleagues for believing that Man of those far-off days to come had reached a peak of progress from which he will never fall. But—gentlemen, I saw the fall. I remained in charge of the time-sphere while they explored the twenty-fifth century for their allotted forty-eight hours, and at that time I could not stand the inaction. I took a swift flight for a further five hundred years, and there I saw it all."

"Saw what, man?"

"I saw not merely the fall of that wonderful civilization which Pascoe has described, but the terrible aftermath of it. I saw such a world as you have never imagined in your wildest nightmares, a world of monsters as was never imagined in the wildest mythologies. That was my 'different world'."

"Remarkable!" ejaculated Pascoe, who was in the group, "why didn't you tell us about it then, Kellogg?"

Kellogg smiled faintly.

"Physical courage is not one of my virtues, Pascoe. You and the others are spirited men. Had I told you of this world, undoubtedly you would have explored it. Undoubtedly you



would have perished in it. It is, or it will be, a world for men of action, not men of academic science. So I kept quiet and came back with you all to the safety of our own twenty-first century. I prefer to remain in this peace and quiet, having made a successful time flight, and to forget about the horrors I saw at the end of it. I will ask you gentlemen to forget about it as well."

"Here, hold on!" cried Lyle, for Kellogg was settling into an arm-chair with cigar and liqueur as if his story were over. "You can't get away with only half a story, even if it is a blood-curdler. What sort of a world was it? What were these alleged monsters? And the inhabitants? Were they dome-headed intellectuals with thumping big brains, or civilized insects, or just plain cannibals? Or what?"

"Yes, just what?" drawled the jovial Arctic explorer Farren. "Let's have the rest of the story, Kellogg."

Kellogg gestured again with his pince-nez.

"I'd tell you willingly. But how can I expect you to believe what I saw when I can scarcely believe it myself? How can I give you a reasonable explanation when I don't understand it either? I tell you, all that chaos was indescribable. It had to be seen to be believed."

"Oh, we'll believe you," asserted Farren cheerfully. "After that Time Expedition of yours we're ready to believe anything. Just give us something—a vague inkling, a rough outline, general impressions—but for God's sake don't keep us in suspense."

Kellogg smiled at the other man's enthusiasm.

"Very well, since you insist. But no more than a vague general impression, for that is all I can give

you. That world of the thirtieth century will be a world of wholesale anarchy, a world of battle, murder and sudden death. You could not imagine a more terrible contrast to the glories of the twenty-fifth century. Yet, I suppose it was to be expected. I have very little faith in the human race. Man boasts of his achievements. He can build great cities, master great problems, control great forces; he can create great music and great literature; he thinks that he is Lord of the Universe. But when it comes to a crisis—and the things I saw in the thirtieth century prove this conclusively—Man is no more than a helpless insect, the sport of chance, the prey of forces that he can never hope to control. That is my impression of what I saw; and from it I come to the inevitable conclusion that Man is doomed."

"**R**UBBISH!" snapped a hard voice. The little group in the corner of the crowded clubroom looked up in surprise and Kellogg looked round indignantly—to meet the uncompromising glare of Carl Janning, ace of explorers, who loomed up like a granite monolith behind Farren's rolling bulk. Janning's eyes glistened frostily. Kellogg bristled. The Doom of Man had been his pet idea for twenty-five years.

"And what do you mean by that discourtesy?" he demanded.

"Just what I say," replied Janning brusquely. "You bellyaching bookworms give me a pain. I've read some of the trash you turn out—Man is a failure, Man is doomed, Man will perish and all the rest of it. But we'll go on in spite of it. Man, let me tell you, is cock of the walk, and there are no forces in this world or any other that we cannot control if we put our backs into it."



"That's a matter of opinion. But I have seen and I know you are wrong. No men could survive in the world that I saw."

"Men like *you* couldn't!" Janning's tone was contemptuous. "But I mean *men*. Give me an expedition of my own picking, lead us to this world of yours and we'd guarantee to make hash of it."

"No doubt you would. I maintain that in the thirtieth century your fine expedition would not survive twenty-four hours, but since that cannot be proved I will keep that opinion to myself."

"You know damned well it can be proved. Why don't you come straight out with it, Kellogg? You've been fishing for someone to back you for a second time flight all the evening, haven't you?"

"Well, er—I," Kellogg fumbled awkwardly, flustered by the other's embarrassing directness. Janning dissembled with a mirthless grin.

"Sure, you want backing. Don't blame you for wanting it, but why the hell don't you say so? No need to pitch an elaborate yarn to get us all interested. I'll go before the Board of Directors myself, if you like, and get five other backers to go with me to arrange an expedition on the same terms as before—flight to the future in the Kellogg time-chamber and forty-eight hours of research when we get there. Suit you?"

"Very good of you to offer it," said Kellogg, slightly mollified, "and now that you force me I'll admit I was sounding the company for such support, so I'll take your offer. But take it from me—there will be no forty-eight hours of research. I meant what I said about that world of the thirtieth century and whatever you think of my opinions I stand by the

facts. If we are foolish enough to quit the time-stream for actuality we shall be lucky if we survive those forty-eight hours."

"I'll take a bet on that," said Janning largely.

"Hm. I'm not a rich man but I have my means—about as much as you have. I'll stake two-thirds of them on the outcome of this expedition. If you win you're welcome to them, if not—well, I won't live to collect."

"So you lose either way — your money or your life. You've got more stuffing in you than I thought." Janning's tribute, if not lavish, was ungrudging. Kellogg smiled, a little wearily.

"I'm an elderly man and I've realized my life's ambition. I shall die, if I have to, without regrets. But it is a pity to see a promising young fellow like you throw his life away with all that promise unfulfilled."

"Damn that!" Janning hated expressions of sentiment; they hit at that streak of tenderness that was buried deep in his hard nature. "I'll collect six volunteers from this group here, a crew of technicians for the time-chamber, outfit the lot and we'll be ready to start within a month."

"Excellent. But—" and there was no ignoring the sober seriousness in Kellogg's tone, "I warn you solemnly that you are taking your lives in your hands."

Janning grunted.

"They'll never be in safer hands."

## CHAPTER II

**K**ELLOGG'S time-chamber was a colossal affair, a great travelling college, laboratory, living space and expeditionary headquarters combined.



Travelling? Yes, it travelled, not on land or sea or in the air but down the great, mysterious river of Time, which of all men until the twenty-first century only Kellogg had learned to navigate.

It was also a travelling hangar, for there was space enough to bring along Janning's big airplane. This was a twin-engined Army bomber, without bomb-racks or gun-emplacements but with a transparent nose for the bomber-observer. The explorer had told the fearful Kellogg in no uncertain terms that he meant to explore, and the monoplane was for that very purpose. He had gathered together a formidable group of men for the expedition: Farren, conqueror of the Arctic; Pascoe, from the first time expedition, who knew the jungles of the world as other men knew their own back streets; Captain Overlin, crack pilot of the world's air lines; Colonel Gundry, military expert of the Scientific Exploration Society. Masters of mighty forces, men who could conquer any exotic, futuristic world if any men could. But so far the world of which Kellogg stood in such awe had proved, from aerial observation, to be a very mild and uninteresting place.

"There's a hell of a lot of life in this dump," groused Janning, indicating the dreary plain below with an impatient gesture. "Are you sure it's the right time, Kellogg? Or were you having nightmares last time you were here?"

"The last time was the same time," Kellogg smiled. "But the place is a little different—about two hundred miles away."

"Then we should be nearly there," put in Farren, joining them where they stood near the pilot's cabin. "We've been out forty minutes and

this is a pretty fast machine. Know any landmarks, Kellogg?"

"I remember a chain of mountains as big as the Rockies and a broad, sluggish river. But aside from nature, it was the manmade things I shall never forget—hullo, there's the mountain chain already."

He was gazing ahead as he spoke, over the shoulder of the pilot Overlin who was lifting the ship gradually for the climb ahead. The other men came up and followed his gaze, admiring the line of majestic peaks ahead. Except for Janning.

"I hope to hell there'll be action over those hills."

"Oh, you'll get your action, my friend!" Kellogg spoke edgily. "I am only sorry I have to be there to share it with you."

The climb was steep and the range was broad. From the fast rush over the desert Overlin had to slow the machine down, and it was nearly half an hour before the peaks were crossed. Descending the opposite slope, they saw it all.

"A city!" muttered Janning.

"Quite a big one," said the cheerful Farren, "and at first sight it is rather like the New York of our time. Eh, Gundry?"

Gundry, who had never seen New York, nodded affirmation.

It was the same familiar vista of high-piled towers soaring to the heavens like yells of triumph; the same atmosphere of roaring, frightening, half-nightmare fantasy, of a world where things were too big to be true. The same city of brawling life and lusty materialism that civilization had seen all over the world for ages. It was a twin city to New York—possibly it was New York, changed through the centuries. Larger, perhaps, for the glistening towers averaged two or three



thousand feet in height, and it stretched away as far as the eye could see down a valley between two great chains of mountains, in the centre of which flowed the broad green river.

“SO THIS is your world of monsters, is it?” grunted Janning, disgusted.

“It is.” The others were too absorbed in the scene below to notice that Kellogg’s face had lost color, that he clenched his fists till the knuckles showed white.

“Then it’s a flop. A flop. I came here to get action, not easy money. What a hell of a place to find *that!*”

Overlin had cut the throttle and now the monoplane cruised at about five hundred feet over the higher towers. The roar of the city below soared up like subterranean thunder—pounding of great factories, deep booming roar of powerhouses, the scream and rattle of giant locomotives and high-power auto engines, shriek of sirens, whistles, loudspeakers, crash and thunder of machinery of all kinds and sizes, sending clouds of black or billowing white smoke into the air. Sight and sound combined to create the vision of a mechanical hell.

Pascoe, who had been sprawling full-length in the observation post in the nose, came back suddenly to the others, excited and perplexed.

“There’s something peculiar about all this,” he said, frowning. “Take a look through these glasses, Farren, and see if you can make it out. I’m damned if I can.”

“Neither could I,” murmured Kellogg inaudibly. He closed his eyes and made a gigantic effort to control himself. When he opened them again he was calm—calm with resignation and fatalism. Farren took Pascoe’s

binoculars and surveyed the street below.

Seen in closeup, the ant-like throngs in the canyons of the city were shown to comprise a horde of mighty traffic. There were automobiles there, thousands of them, great torpedo-shaped things the size of locomotives and bigger, travelling like iron whirlwinds. There were variations in sizes and colors but all were of the same design—streamlined, bodies enclosed, wheels hidden, no windows or windshields . . .

“You’re right, Pascoe. There is something peculiar about all this. But I can’t make it out at all.”

Voices in the cabin were silent for a space, as the puzzled men scanned the hectic scene beneath, trying to figure out what queer element made it strange—different, from the normal scenes of humanity.

“No men about!” ejaculated Gundry suddenly.

For a moment the words of the usually uncommunicative soldier did not register. Then Janning exploded.

“What’s that?”

He seized the binoculars Gundry passed him and joined Farren. In the shifting kaleidoscope below there were buildings, traffic, machines moving and speeding. But Gundry was right. There were no men about. The broad sidewalks flanking the motorways were empty. The buildings that should have been thronged with incomers and outgoers showed no such signs of life.

“And if there were men inside those cars,” muttered Farren, “they couldn’t possibly see where they were going.”

“May I be damned!” commented Janning.

They were silent for a while, trying to accept and believe the phenomenon before their eyes. Trying



to explain it. Here was a complex mechanical civilization of a familiar type; with no one to work it; and it worked. How on earth was it done? Why was it done? What did it mean? Who was responsible for it? There must be men somewhere—what sort of men? Who—what—how—

"There goes the Homicide Squad," said Gundry.

They were speeding down the center of the broad motorway, ten of them in perfect pair formation. Motorcycles. Two-wheeled machines, all enclosed, without saddles, handlebars—or riders.

"Hell's teeth!" swore Janning. In two words he expressed the astonishment and incredulity of the whole group. Here was proof positive that the city of the thirtieth century was a phenomenon without parallel. This was not merely a collection of automatic machines doing commonplace tasks in doublequick time but a whole civilization of machines, apparently working by themselves, possibly for themselves. There was no sign of the men who should be their masters. It was new. It was baffling; and it baffled the Kellogg time expedition to a man.

"Cut the altitude, Overlin, and let's get a closer look," ordered Janning. Overlin tipped the plane over and sideways for a fast spiral descent, with a calculating eye on the soaring towers at hand.

**T**HAT sideslip saved their lives.

A deafening concussion tore at eardrums, sent the monoplane rocking crazily sideways and down. Three more explosions followed in rapid succession and in an instant Overlin found himself fighting for life in a machine almost out of control. The world hurtled upward. The monoplane streaked for it, nose down,

straight for the broad expanse of a flat roof below. Overlin heard shouts of alarm back of him, the crash of big men thrown about like ninepins and the shattering of glass. Before a last despairing heave on the stick he caught a brief glimpse of the grim black muzzle of a four-inch anti-aircraft gun pointing upwards. Then bullets tore through the walls, smashed instruments on the dashboard—

Janning saw Overlin jerk convulsively and fall helplessly sideways. He moved too fast to think; one blow flung the pilot out of his seat and Janning was in his place, iron hand clamped over the stick. The monoplane hauled gradually out of its fearsome dive. Janning saw the huge expanse of roof before him and settled for a landing. Bullets still smashed and tore through the walls of the plane.

The cabin echoed to the shattering of metal and glass and cries of injured men. Providentially a concrete blockhouse loomed up ahead at the side of the roof and Janning ruddered the plane in its direction to get shelter from the murderous gunfire. As the uproar of it died down he braked and cut the motors.

The cabin was like a slaughterhouse. The faces of Pascoe and Farren had been slashed by flying glass and fairly poured blood. Gundry nursed and cursed a bullet-riddled arm and shoulder, in which bones had been saved only by a miracle. Kellogg lay unconscious, blood oozing from his left arm, leg and temple. Overlin was dead.

"The swine!" roared Farren through blood-dripping lips. "Shooting without provocation! Shooting at falling, helpless men! My God, we'll make 'em pay—"

"Come and sew yourself up," said



Janning abruptly, striding down the glass-littered cabin to the small compartment at the rear. He unlocked the door and tugged out a chest with a red cross on it. Needing no advice, Pascoe and Farren set to work repairing injuries, luckily no more than flesh wounds. Gundry and Pascoe between them tended the unconscious Kellogg. They were too busy to notice Janning, the only man uninjured, and it was not until Kellogg was brought around and his injuries bandaged that they realized he had left the machine. He was back an instant later, and he called to Col. Gundry.

"There's a piece of artillery on the corner of this roof, soldier, and three machineguns mounted along the parapet. We're hidden by the blockhouse and beyond their angle of fire, so I'm getting revenge while the getting's good." He led the soldier to the rear of the plane, showed him a row of crates bolted to the floor. "I came prepared for trouble. Automatics, high-power rifles and ammunition aplenty for every man. And if that's not enough—"

He took a crowbar and prised open a crate at the end, to reveal a neat honeycomb arrangement inside holding numbers of small steel eggs.

"Mills bombs, begad!" ejaculated the soldier.

"Yes, beauties. Take a couple and fill this bandolier with 'em, then come along with me."

**I**T WAS windy out here on the roof and the two men hugged the wall of the blockhouse closely. Janning dragged with him a small empty crate as well as the formidable object in his other hand. At the corner he stopped and turned to Gundry, still pressing himself to the wall.

"Take a look round the corner,"

he hissed, "and for God's sake be careful."

The soldier, wise in the warfare of jungle and desert as well as that of more civilized places, went down on his belly and hauled himself easily to the corner. There were the three machineguns, mounted on the parapet as Janning had said. Some way distant stood the four-incher, ready to belch hate again at aerial trespassers. The muzzles of the machineguns nosed in the direction of the two men, moving in slow arcs, uncannily like hunting dogs nosing out a scent. There were no human crews to operate them.

"Looking for us," said Gundry.

"I know. You've a bomb in each hand, haven't you? I'll divert their fire, then you take the two nearer ones and I'll take the other. Then we'll go after the big fellow."

Gundry was on his feet again. With a swift movement Janning heaved the crate skyhigh over the roof of the blockhouse. The gunmuzzles reared high, vomiting flame. It was a gift of a target and the two men went after it vengefully. Just in time to dodge the concussion they sprang back into shelter, to hear the sweet crash of explosions and sudden cessation of fire.

Gundry seized bombs from the bandolier, passed two to Janning and helped himself. Round the corner they saw that two of the guns had vanished and the third lay overturned, still spurting bullets like a wounded snake spitting venom. Gundry gave it another bomb, feeling oddly that he was putting it out of its agony, and then with vindictive determination they went after the big gun.

The bombardment smashed it to pieces. Janning snarled with joy as the gun went up, shook his fists in



exultation. But not for long. Fire converged from the roofs of buildings nearby on to the scene of the explosions and the two men dived for shelter again.

"This is a hell of a place to be marooned in," Janning snarled. His teeth were bared in a mirthless grin and his eyes glittered. Gundry looked at the man, recollected the rumor that Janning had once killed a tiger with nothing more than his hunting knife, and believed it. Janning did not merely lust for battle; he lived for it, and he'd found it.

"Tight spot," admitted the soldier. Guns, large and small, could be heard nearby and in the distance, staccato accompaniment to the roar of the great city. Abruptly voices were heard, huge voices, gigantically magnified through a thousand loud-speakers.

"*We are at war!*" thundered the voices, "War, war, war, war—"

"Action, thank God!" hissed Janning. He ground his teeth, clenched a sinewy fist and smashed it against the other palm. Gundry shrugged.

"Just another job of work. Hullo! Look over there!"

He pointed over the broad expanse of the roof, out to the surrounding maze of towers to where a tower reared beside another great expanse. From open doors in the tower poured a long black stream of aircraft, big monoplanes, fast and formidable. Other doors clanged open, more machines joined the great swarm that swung out in a curving line over the river. Janning stared hard.

"Hell!" he said at last. "Let's eat."

### CHAPTER III

**I**T WAS, in effect, a council of war. Kellogg sat on an empty bombcrate, leaning against the wall of the blockhouse, pale but

determined. Gundry sat under the monoplane's wing, fingering his trim gray mustache and looking serenely untroubled. Pascoe's face was a criss-cross of sticking-plaster, Farren's was almost hidden behind a single bandage. Each man was in sole command of his own department of the expedition, but Janning, as sponsor, was nominally in command of all, and in the emergency he took the center of things without effort.

"If we get away from here it will be on foot," he declared, "the plane is shot to pieces and the fuel tank is a sieve. In any case we could never take off without being shot at from every angle."

He gestured widely to indicate the windy expanse of the roof where the expedition sat marooned. It was as broad as the deck of an aircraft-carrier and just as exposed. It would be impossible to take off from it without being detected and undoubtedly shot at.

"Pascoe says we have provisions enough to last for a week, with care, and enough armament to chuck our weight about if we have to. I propose we make our way back to the time-chamber—we'll have all our work cut out to do that alone. Question is, what are we up against? Any ideas?"

There was silence, and men looked from one to another, troubled, questioning. The problem that a few hours of whirlwind action had blotting out of their conscious minds surged up again. What was the nature of the alien world they had found? Who were its rulers—why had they attacked—Farren spoke up.

"It seems to me that this is a sort of mechanical utopia such as our scientific romancers wrote about a thousand years ago. We see hordes of unmanned machines in operation,



obviously done by remote control. The men of this age have lifted the curse of toil entirely from their backs and are now devoted to science and art. That is why we see nothing of them."

"We shall find," he concluded, "that the majority of them are buried away in their laboratories and colleges, while a few technicians supervise the machines. I propose that we hunt out the authorities, or council, or whoever is in office and tell them who we are and what we want. We have all our diplomatic credentials with us."

"They wouldn't recognize them if they saw them," declared Janning. "We are in a world a thousand years removed from our own. Within an hour of arrival here we are attacked without warning, and having taken our just reprisals we hear they are at war. Where are we going to find the men we can't see? What are we going to do with them if they act like that? What can we expect from them after what we've had? No, I tell you, if we want to get out of here alive we shall have to fight our way—every inch of it."

"Big proposition," murmured Gundry, who knew war and warfare.

"But surely there was some mistake," objected Farren. "I'm sure that if we appealed to the right people—"

"No good, Farren," it was Kellogg who interrupted. "Before we started I warned you all of the odds you were challenging. This is your world of monstrosities, Janning. Explain it if you can. Take it. I wish you joy of it."

"Thanks," Janning glared. "We've smashed four of your monstrosities already, and we'll smash the whole damned place if we have to. Pascoe, which way to the time-chamber?"

"We approached the city from the west. When we were shot down we were close to the river, probably we are near the riverfront now. Our obvious plan is to get down to street level and make our way to the mountains by road, always assuming we are not stopped by the police on our way."

"We won't be stopped by police here," murmured Kellogg, "this is a world of anarchy, my friends, anarchy and sudden death."

"Shut up, you pessimist," said Farren goodnaturedly. "I dare say this is quite a rational world when once you get the hang of it."

"No," Kellogg sighed fatalistically, "there is something that makes me believe that the true facts of this world are altogether wilder and more horrible than any rational explanation. Cars without drivers; motorcycles without riders; guns shooting at you of their own accord—"

His voice died away and his eyes closed. In the brief silence that followed a cold, faint chill crept over the other men, chill of another, alien and monstrous world.

"Hell!" roared Janning, voice exploding like a gunshot, "this is a time and place for action, not maudlin speculation. We've a tramp of two hundred miles in front of us and God knows how many fights for life. We'll never survive a day if we sit here drivelling like this."

"I gave you two days to survive." Kellogg was smiling again. "It seems I was generous. It's no good, Janning. We are doomed—mere helpless insects amid monsters of iron and steel."

"Helpless!" Janning's teeth bared. "Come on, Gundry, we've got to make an army out of these cripples."

Between them they hauled out the crates and cases of armament. There



was a powerful Service rifle and two revolvers for each man, and bandoliers to carry ammunition and bombs.

"Provisions here for a clear week," said Pascoe, stowing tins into their packs. "We prepared for a stay of forty-eight hours and a big margin of safety. This ought to see us through."

"If not we'll take to cannibalism," was Janning's rejoinder.

The odd little army was ready and equipped. The assortment of bandages and civilian clothes, save for the uniformed Gundry, made queer contrast with the formidable array of weapons. But the weapons were in good hands. Janning, Gundry, Pascoe and Farren were hard-living, hard-bitten men accustomed to danger and threatened death, and even the sedentary Kellogg had had service experience in his younger day and could carry a gun smartly.

"One more thing," said Farren, as the expedition gathered round the cabin door of the monoplane. "What about Overlin?"

"I laid out his body and covered it," said Pascoe. "We'll have to leave him here in the plane. We might fire it and cremate him, in lieu of a decent burial."

"That would bring half the local air force down on us," Janning said. "We've done him what honors we can—come on."

A CAUTIOUS examination beforehand had shown that the only exit was through a green-painted door at the further end of the blockhouse, which opened into a cage-like room that was clearly an elevator. When the door closed of its own accord behind them there was no sense of motion to follow, and for

five silent, restless minutes they wondered if it were not a kind of trap. But then a door opened suddenly and a deafening uproar overwhelmed them. The rhythmic thunder of big machines was punctuated by the rattle and clatter of smaller and the pounding of wheeled transport. The din rasped uncomfortably upon the men's ears and they gritted their teeth. Gathered round outside the door of the elevator they surveyed the scene, hands hovering over gunbutts.

The place was huge and in clear daylight, though there were no windows in the wall nor sign of illumination. Long clear avenues stretched between row upon row of roaring machines; wheels spinning, levers clicking, long driving-bands clattering, hundreds of little triphammers rising and falling, metal slugs popping in and out, cogwheels turning, actuating crankshafts and worm-gears. Machinery everywhere. Rank upon rank of roaring, thundering, clattering machines.

"No men in here either," Gundry raised his powerful voice.

Not an operator nor a supervisor.

They strode down a broad white avenue, Janning in front and the other four spaced in pairs behind each other, a wedge-shaped formation detailed by Gundry giving each man clear vision about him and space to handle his weapons in comfort. They gazed almost in awe at this mechanical wonderland. A heavy rumbling was heard overhead and a travelling crane passed above, bearing a mass of steel. They passed a crossing where rails were sunk into the floor and a train of electric wagons clattered past them. At the end of this avenue, to the left of them, was an open door leading to the



open air, and at Janning's indication they made for it.

The factory was built, not on one of the great motorways but in a comparatively narrow side street. The walls of surrounding factories reared up to heights of more than five hundred feet, solid and windowless. Machinery echoed and thundered from within, but the street was empty of traffic. With formation spread out a little the expedition advanced down it in the direction indicated by Pascoe, the acknowledged guide. At the end of the road a few hundred yards away traffic was visible, and beyond that the gleam of the river.

"Get to the river," instructed Pascoe, "then we can locate a main road leading west. Maybe we can get a lift from some driver, if they do those things here."

"Some hopes!" grunted Janning.

Halfway down the street the roadway was under repair. The fiendish roar of pneumatic drills mingled gaily with the general uproar. Drills bit into the paving, cement mixers revolved, road-laying machines advanced. All by themselves. No laborers to handle them, no foreman to supervise.

"This beats me," muttered Farren, "can you make head or tail of it, soldier?"

Gundry was an Army officer of the traditional school whose mental processes ran mainly to the giving and taking of orders. His shrewd commonsense could explain little of the bizarre situation confronting them.

"I believe," said Kellogg, "that we have found a race of intelligent machines. Not humanly intelligent, perhaps, but sufficiently so to perform their allotted tasks without supervision. A blind intelligence, but dangerous for all that. That is what I thought when I first saw them and

that is what I feared about them—their intelligence!"

"Bosh!" snarled Janning.

**T**HEY REACHED the end of the street without interruption or interception. The sidewalk along the embankment was railed off from the roadway by a high steel fence, blocking a full view of the motorway. A ramp led up to what was apparently a pedestrian bridge over the motorway, and ascending this the expedition had its first view of the embankment and the river.

The giant motors thundered beneath them in a never-ending stream at speeds which the twenty-first century would have called dangerous. Down the river proceeded big white streamlined ships of great tonnage, travelling like speedboats. But perhaps the strangest phenomena were beside the embankment. Ships in dock lay with hatch-covers thrown open. Over them stretched the arms of great cranes, rising and falling, stretching like human limbs, hauling great cargoes from ship to shore. But there were no crews aboard ship, no stevedores to manhandle cargoes or stow them on the driverless trucks that carried them away. No men of any sort, anywhere.

"I believe you're right, Kellogg," Farren's voice shook a little. "There is a weird sort of intelligence about all these machines. What they remind me of I can't quite think, but it's something inhuman."

Janning cursed. Pascoe shouted for attention.

"This road joins a curve of the motorway and bridges across the river. Let's get down to street level again and skirt the embankment till we find a westward road."

The sidewalk along the motorway was broad, and though there was



space for thousands of pedestrians there were none save the five expeditionaries.

This sensation of tramping the familiar noisy streets of a big modern metropolis as if they were paths through the depths of the jungle was indescribably weird. The absence of men amid these triumphantly material works was now more or less accepted, but the abnormality of the situation was preying on the minds of more sensitive men like Kellogg, Farren and Pascoe.

"I wonder what goes on inside these things," muttered Farren, indicating the cliff of masonry on their left, rearing hundreds of feet into the air. Gundry shrugged. Kellogg thought what a magnificent sight these towers must present from the river, but then he thought of that uncanny intelligence within, and shuddered. Of a sudden the expedition was stopped in its tracks by a voice, echoing over the surrounding uproar.

"Calling all cars! Calling all units of the Mobile Squad in Area QX. The incredible report that the aircraft shot down this morning was manned by intelligent beasts is now confirmed. The beasts were observed by cameras to enter Factory QX4 and are now believed to be at large. They are armed, intelligent and dangerous. All squads patrolling Block Ten will throw a cordon and converge. The beasts must be shot on sight."

For a moment the expedition was nonplussed.

"That was a human voice!" cried Farren at last.

"No," Kellogg shook his head. "An inhuman voice. Cold, hollow and mechanical."

"Come on, damn you!" roared Janning. Don't you see, you fools? In-

telligent beasts. Shoot on sight. They're after us!"

Even as they realized it they heard the fierce howl of sirens, the sputtering roar of high-power engines as a Mobile Squad of the riderless cycles came streaking down the road at high speed.

#### CHAPTER IV

**T**HERE was just an instant of time for rapid thinking and Janning made the most of it. He yelled to Gundry, who had also spotted the open door in the tower on the corner, and while Gundry herded the other three men within, Janning sprang to the side of the door to cover the retreat.

The Mobile Squad was charging down a secondary road leading into the motorway. Janning saw them coming, saw the revolvers gripped in steel claws at their sides, and his teeth bared in a soundless snarl. His own two guns roared their challenge, ripping up the tires of the foremost machines, sending them skidding. Bullets ricocheted from steel sides. But the second row of cycles carried sub-machineguns mounted in front. Janning dived for shelter as the guns roared and gouts of concrete spouted from the walls about him. No time to stop and stand, though this narrow passage might be held against an army. He heaved at the door, slammed it shut. Gundry seized his arm.

"All right, Janning?"

"O. K., thanks, soldier. Let's get out of here, somehow."

The place was another factory, roaring. Long shafts of steel were borne from place to place by massive travelling cranes. A big wagon rumbled down the central aisle, bearing a mass of shining steel cylinders.



They set out down the road at a steady jogtrot. There was no pedestrian fence along this stretch and here the men had their first close view of the motorway. It was vast—broad as a ten-track railroad and the streaking autos loomed up gigantic. A ten-ton truck of twentieth century highways would have been dwarfed on the road beside these thundering giants, flying past at speeds of a hundred miles an hour or more. They seemed to be built for nothing but size, power, high speed and taking of heavy strains, for even in rounding the huge, elaborate clover leaf crossing further down the embankment they did not slow down but hurtled round the banking like mad things.

About a quarter of a mile down the road from Block QX the sidewalk curved in and formed a secondary track to the roadway. In the center of this track a canopy extended outward over a big, garishly painted service station. Cars were parked further along the block. The five men stopped as a huge auto pulled into the secondary track with a screech of brakes, came noisily to a stop beside a row of bright green oil pumps. A long overhead arm swung out, extended a nozzled pipe into the tanks under the side of the car. Needles rounded the dial on the pump. A noisy little tender puttered out of the station and circled the big car, spraying its dusty sides lavishly. The expeditionaries, their recent peril forgotten, gazed on enthralled.

"Automatic service—for driverless cars," cried Farren, and again his mind sought that weird parallel that it could not quite grasp.

"Horrible!" Kellogg shuddered, "and those ghastly things in the factory—" He swayed a little and Farren caught his arm. The man was

overwrought and on the point of collapse. But Janning shook him roughly.

"Don't faint yet," he grated, "We're getting into this car first, then you can collapse all you like."

Panel doors banged open in the side of the car and the tender buzzed in. Without hesitation Janning and Gundry went in after it, followed rather reluctantly by the other three. Inside, the huge automobile was as commodious as a whole Pullman coach, though it had none of a Pullman's comfort. Motors and machinery lay everywhere and the place reeked of oil. The walls which looked like steel from outside were now seen to be transparent throughout and the car was like a travelling glasshouse. The little tender fussed around over machinery, extending cranked arms holding cans of lubricant to oil joints and spanners to adjust nuts and bolts, doing half a dozen jobs at once. Janning watched the thing alertly, guns drawn, ready to shoot it to pieces the moment it showed signs of fight. But it didn't. In a few minutes it buzzed out, the doors clanged shut, the roar of the motors rose to a bellow and the car moved off smoothly and rapidly.

"We're saved!" shouted Farren. With the sudden snapping of tension his whole stout frame went weak and he leaned against an oil-tank, laughing shakily. Pascoe too was affected and he sank limply to the floor, gasping. Kellogg, surprisingly, was calm again. But he understood the feelings of the others. It was not the danger that had caused the reaction, though that was bad enough. It was the brooding, haunting terror of the unknown that lay everywhere about them and the threats of death in unknowable, inexplicable forms lurking in a fa-



"Munitions, by God!" swore Janning.

"Shell cases. No danger if we shoot."

It was a good place to play cat and mouse in, especially since the mice had fighting power and fighting spirit. In the rush of emergency Kellogg's morbid fancies were forgotten. Time for action. A crash on the door warned them to move fast.

"We're trapped," said Janning with finality. "They've closed a cordon round this block and they're smashing that door in. If we're going to get out we must make our own openings."

"Take the offensive," Gundry said, as the door shook under another smashing blow. "Get 'em into the open here and attack en masse. Like this."

Swiftly he outlined a scheme while the others listened in breathless haste not unmingled with fear. They had barely time to scatter and take cover in the positions assigned them when the door crashed open and the weird machines of the Mobile Squad, black, glistening things like an army of giant ants, poured into the factory in a roaring, reeking torrent. The five men crouched amid the maelstrom of bellowing machinery, hearts pounding, some with fear, some merely out of breath, one with lust for battle. Avenues were thronged with motorcycles, cruising slowly, sub-machineguns nosing for a target. Near the door they were thick, but at the far end where they had not penetrated, the place was empty. Janning moved, placed a pillar between himself and the nearest advancing machine and lobbed a bomb in a high arc toward the far end. It burst with shattering concussion amid a tangle of wires and wheels that went flying skyhigh. The air quaked to

the roar of accelerating engines as angry machines raced for the scene of the explosion. Right into Gundry's trap.

Two more bombs from Janning hit the milling crowd and as more machines tore up the other men joined the bombardment. Motorcycles reared up savagely on one wheel, shrieking like wild beasts wounded. Guns crashed and echoed, wheels and cylinders flew out and flames spouted from burst oil-tanks. More and more of the senseless things came charging down the avenues to join the melee, whirling, roaring, snarling like bloodcrazed animals fighting to the death. The hidden men methodically fed explosive fuel into the hideous bonfire, till Janning caught Gundry's signal.

"Coast's clear," boomed the soldier's tremendous voice, "Time for retreat, Janning."

The whole of the converging squadrons had been drawn to the battle at the far end of the factory, leaving the door open and unguarded.

**L**EAVING the appalling scene behind them the expedition raced for the open door, horrible noise of battle still ringing in their ears above the pounding of the factory. The side street from which the Mobile Squad had issued was empty, save for the complicated bulk of a machine that was possibly a piledriver. Evidently this was the thing that had battered down the door. It crouched on the sidewalk, throbbing with power in reserve. Janning and Gundry reached for grenades, but the thing made no move towards them.

"We'd better get going," shouted Pascoe. "Down the motorway and away from this block before we're killed. The faster the better."



miliar, almost commonplace, setting.

Janning, after a glare of disgust at the others, paced to and fro like a caged lion, muttering to himself. Gundry alone retained complete calm, the wide-eyed and innocent calm of one who did not seriously understand what fear was. Methodically he stacked the other men's rifles, stowed bandoliers of bombs on the rack overhead.

**J**ANNING strode to the front of the car and glared ahead. The machine had now hit the central track and was streaking at high speed. The horizon fairly leaped towards it. Despite its speed or more than one hundred miles an hour, iron monsters overtook and passed it continually, while those on the opposite tracks flashed past like light. The great skyscraping towers flew by, like the prows of giant galleys on a sea of concrete and steel. The journey was wild, exhilarating; amid this avalanche of machines Janning felt the surge of joyous fury within him, felt the pounding of his blood, the lust of battle he had felt before when hacking his inexorable way through many an impenetrable jungle. Man had conquered the jungle, Man had built this colossal city, Man controlled these titanic machines—God, the glory of being a Man! A fighting man in a fighting world! His teeth ground, fists clawed out and clenched as if over an invisible throat. Forgotten were the morbid croakings of Kellogg, the weird incomprehensibility of this alien world where death lurked round every corner and struck with blind unreason. This was battle, and battle was life.

"Where are we heading for, Pascoe?" came Farren's voice suddenly. He was calm again, calm as he al-

ways was when facing the normal dangers of the Arctic.

"This road runs due north. If the car keeps straight ahead it means we shall have to make a long detour to the southwest when we leave it, unless we can board another and get a lift as far as the mountains, or even beyond."

It seemed that the city would never end. Fast as the car travelled, the same scene presented itself continually.

Nothing but rearing towers flanking the long, broad river, filling the valley between the rolling mountain chains. Nowhere was there a break in the scene. This congested valley might extend to the ends of the earth. Janning glared fixedly ahead, wondering faintly if the whirlwind ride might take them anywhere near the time-chamber in the end, but more concerned with the immediate possibility of another fight. Abruptly the car hurled itself up the ramp of a crossing, rounded the banking at a fierce angle with screech of brakes and howl of supercharger. The men grabbed stanchions, shouting, as centrifugal force flung them violently off balance. Down another ramp and on the straight again the car headed west.

Farren came to join Janning in the front. The vista before them was magnificent. The western road was even broader than the embankment and led in one straight tower-flanked sweep to the blue mountains in the distance.

"Superb!" murmured Farren. "And now, thank God, we're going westward and towards the time-chamber."

"You're in a hell of a hurry to get away from here," Janning growled, "What's the matter? Afraid of those damned things?"



"I am," Farren, who had killed polar bears in his time, gazed at the other man steadily. "You know I am not a man to take fright easily, but I tell you, this world we have come into has something of the unholy about it. It's wild. It's mad. Look at it now—" he gestured, pointing down the great road ahead, to the great cars whirling on either side, "what's the purpose of all this? Where's the sense of it, all these mad machines running about like—well, like—"

"Overgrown insects?"

"Insects! That's it!" That was the parallel that Farren's subconscious mind had been seeking. This weird, wild world on wheels was like an enormous and horrible magnification of the world of insects underfoot. The same armor-plated bodies, grim and glistening black, or bright with a polished, satiny luster. The same scurrying movement hither and thither, the same blind, purposeless efficiency and untiring labor. The same ruthless disregard for life, the utter absence of anything that men call beautiful. A wonderful world. But a world gone stark, staring, raving mad.

"You're right, Farren. This is a hell of a place, but that's just why I am enjoying it. You don't have to go into a funk like Kellogg. We are men, damn it, with men's brains and men's cunning, and men's strength, too. These mad things can chase us and harry us because they outnumber us, but they can never beat us. Brace up, man! We'll have to fight our way—sure we will, but where's the joy of life without a hell of a good fight every now and then?"

Farren laughed, his good humor restored.

"What a man for trouble! Well,

you've got your bellyful of it now. If you can take it, so can we."

**T**HE CAR was nearing the mountains. It roared under the archway of another huge crossing and pressed relentlessly on. The other three men had joined Janning and Farren in the front and were absorbed in the scene ahead.

"Very smooth travelling in this car," remarked Pascoe, "notice there is no bumping or vibration?"

"Except for the noise you might call it peaceful," Farren said. "I wonder where this thing will put us down if it ever does—Ye gods, look at that!" He had suddenly gone rigid. They followed his trembling finger to see the new element that had abruptly entered the now-familiar scene of the machine-world.

Over the western mountains the sky was black with bombers. There was no doubting the identity or the purpose of the terrifying clouds that reared up like a sudden whirlwind over the city. As quick as the eye could follow they rolled over the western outskirts and helldived to earth, and the city rocked to the concussion of ton after ton of high explosive.

There was never an air raid like it. Towers keeled over and toppled in ruin, cars, motors, engines, machines of every shape and size and description flew high in fragments. Death and destruction rained torrents and the car bearing the only living beings in the whole city hurtled straight for the inferno. Kellogg screamed as a hawklike monoplane swooped down on the car, gunfire blazing from its wings. Janning seized him, flung him behind the shelter of a dynamo. The walls split under the impact of explosive bullets, men yelled and dived for cover.



Before the car swerved round a bend with screaming brakes to seek shelter, Janning in the front caught a quick glimpse of the fierce, indomitable machines of the Mobile Squads pouring a fire of destruction into the flaming skies.

#### CHAPTER V.

**T**HE CAR plunged up a northward road, slowed, turned into a secondary track and down a ramp leading underground. Motors boomed hollowly in the walls of the tunnel. It came out finally into a great underground park and rolled to a stop. Around it other cars poured in by the hundred. The uncanny intelligence of the machine-world told these senseless things that danger threatened, and some intelligence of their own, perhaps, guided them to safety.

When it seemed that everything was still, five human beings crept out of cover to survey their position. The car was riddled from end to end but only one man was hurt. Janning, hitherto untouched, now blistered the air with cursing as he tore off his clothing to get at a shoulder damaged by fragments of shell. Kellogg, with surprising firmness, pushed him into a sitting position and attended to bandaging the injury, a severe one which would certainly incapacitate Janning's left arm for the rest of the journey. The others collected their scattered belongings, Gundry uttering a silent prayer for the miracle that had saved the store of grenades from flying fragments.

"How do we get out of here?" demanded Janning, between curses.

"Why not stay where we are?" objected Farren. "We're safe enough, and certainly an air raid like that

one is too big a handful even for you."

Reluctantly Janning agreed. No one man can fight bombers with rifles and revolvers, and to enter the streets again during a raid on the scale of the present one would be plain suicide.

The auto park was deep underground, but even down here the crescendo of explosions vibrated like a nearby earthquake. It was not merely successive detonations but a long, continuous, echoing roar; and it went on as if it would never end. An hour passed; two hours; three; towards the end of the fourth the thunder had lessened somewhat in intensity. At the end of the fifth, explosions were heard singly, and the feeble (by contrast) crash of gunfire.

Six hours after the car had gone underground a last shot was heard, followed by sirens above the normal hullabaloo of the city. The five men gazed at each other mutely, questioning, awestruck.

"So that," murmured Farren at last, "is what they meant when they shouted, 'We are at war!'"

"Whoever 'they' may be," Kellogg reminded him.

"Whoever can they be?" Farren's voice was a whisper. Once again a cold chill of silence settled over the little expedition. At first it had not been difficult to shake the mists of unholy atmosphere from their minds, but now, after these demonstrations of the machine-world's tremendous power and incomprehensible purposes, the haunting terror surged up again. The who, why, what and how of this appalling world came uppermost in their dazed minds. Danger of known and recognized sources was one thing. A world of murder gone mad was quite another.

Abruptly Janning ripped out a



curse that tore across morbid speculation like a slashing knife.

"For God's sake, lie down and sleep it off," he snarled. "We've survived twelve of your forty-eight hours, Kellogg, and we'll survive them all if your nerve doesn't fail you."

"Look after your own nerve, Janning. You're getting excitable, and it won't do your shoulder any good. Take things calmly, as I do."

"Pah!" Janning dragged himself to his feet, turned to Gundry to arrange for watches to be kept, though there was little chance that anything would surprise them here in the car.

**B**Y PASCOE'S timepiece the exhausted men slept a full ten hours, aside from two hours each of duty. The rumble of the city overhead, the noise of carpentering and leaving the park, went unheeded. Their own machine never moved. It was ten in the morning by the clock before all were awake and about.

Pascoe unloaded tins of bacon and beans from his pack and a small heater to brew coffee. They ate cheerfully, the strain of yesterday's terror eased out of their systems. They were brewing a second pot of coffee when a grinding clash was heard in the fore end of the car, and simultaneously the engines around began to throb. The car shook and rolled forward swiftly, heading for the exit tunnels.

"We're off!" cried Farren gaily. "Where to, I wonder?"

"To the open air, at any rate." Janning threw back a scalding cup of coffee at one gulp, dropped the cup and reached for his rifle. There was a scurry of general clearance; men stuffed plates and mugs into their packs, reached for their guns and bandoliers of grenades. By the time the car had gained the outer world

the time expedition was ready for war again.

The car turned back to the western road it had come from. It was travelling slowly now, with an uneven coughing and jerking in its engine, and instead of making for the central track it kept to the secondary tracks for slow traffic. Some way ahead the men saw that the road was blocked with debris and impassable. Traffic turned to side roads. The car went off the road altogether at last and chugged into a service station for the repairs it needed. The men stood by the door, rifles slung over their backs and hands at gun-buttocks. Sure enough the doors banged aside to admit a service tender, and at Janning's indication the expedition filed out. That glimpse of the road had told them that further progress westward must be made on foot.

The destruction wreaked by the raiders was appalling. High explosives of undreamt power had poured a nonstop barrage into the city streets, striking and penetrating to the very foundations of the towers and bringing them down in tumbling ruin, taking others with them in their fall.

Great girders and masses of concrete lay scattered about in heaps of rubble. Cars, the giant autos of the super highways, had been flung about like toys. Here and there amid the debris lay overturned guns and the remnants of Mobile Squad cycles, some of them not entirely shattered but lying about with automatic guns still firing spasmodically, blindly, dangerously. Amongst all this wreckage were many carcasses of burnt-out bombers, of a size that beggared description. The havoc stretched for miles in either direction. The area of the city devastated must have been colossal, the size and numbers of the



bombing squadrons that wrought such damage beyond compute. The men of the twenty-first century tried to adjust their blurred, stupefied mental impressions.

"Is it possible," breathed Farren, "that machines could do this—*this*—all of their own accord? I can't believe it. Machines are efficient, supremely efficient, and if they evolved intelligence they would be perfectly efficient. But how could they do it? What conceivable motive could they have? Even if machines could have a motive for anything!"

**M**ORE machines came up the western road, noisy, cumbersome things, great steamhammers and steamshovels. An overturned tower lay across the roadway, great walls rearing high, an enormous obstacle. The steamhammers spread out in line abreast formation, advanced as one upon the obstacle and struck it with terrific force. It didn't give at first. But under the rhythmic, remorseless bombardment the great concrete wall crumbled, split away and finally collapsed, burying many of its destroyers under it. Some of them emerged, damaged. Some were wrecked. A long line of heavy trucks drew up behind the steamshovels, which advanced in their turn. They ate their way into the wreckage, steel jaws champing, heaved great mounds of stuff into the waiting trucks. Some strained at masses beyond their capacity and broke down but went on working blindly, clumsily, uselessly.

If they had intelligence it was of a low order, for they seemed unaware of anything wrong with their mechanism. Big mobile derricks followed in their wake, extended magnetic steel claws into the wreckage to haul out big girders. The driverless trucks carted away masses of stuff.

Some broke down under an overload, but still engines strained uselessly at enormous burdens. When there was enough space through the middle of the shattered tower for them to pick their way the men forged ahead, towards the mountains which were now no more than a mile or so away. They passed through more wreckage, escaping narrowly from many an odd gun that blazed away convulsively from odd points, either with intent or by accident. Through streets fairly clear big derricks hauled away the remnants of colossal bombers. In these clear spaces the work of reconstruction was going on. Machines of weird shapes and all sizes built up a steel skeleton above a tower sliced off in the middle. High overhead great cranes hoisted girders which were taken by tentacular arms from spidery things hanging at odd places. Little wheeled machines ran up and down the fixed girders at all angles, clinging to surfaces like flies, riveting, hammering, drilling, boring. Welding machines spouted livid flames. The air fairly shook to the uproar. Whether destroying or rebuilding itself the machine world remained the same—wild, weird, uncanny and inexplicable.

The city reached its boundaries almost at the foot of the mountains. Here the western road plunged into a high tunnel from which emerged a steady stream of trucks and mobile breakdown machinery, heading for the devastated area. There was no sidewalk into the tunnel and to risk the motorway meant almost *certain* death under pounding wheels. Accordingly the expedition headed for the south side of the road over a pedestrian bridge and trudged from there along a wide strip of wasteland that edged the foot of the mountains. The going was hard. Rocks,



mounds and low hills blocked the way on all sides. The expeditionaries were accustomed to hard going in most parts of the world, but none of them had had experience of mountaineering.

After a few hours of this heart-breaking, backbreaking effort they were nearing exhaustion. Kellogg, bearing up with silent effort, was white and strained. Farren's huge, stout frame quivered and dripped perspiration. Even the normally tireless Janning began to give, heaving breath through clenched teeth and cursing his throbbing shoulder. The damned thing was weakening him seriously. But they ploughed on desperately, tramping steadily over the even stretches, floundering over piles of rock, stopping now and then to blast their way through obstacles with grenades. Exhausting though the journey was, it was safer and better here than in the bullet-riddled streets of the city; and ever they drew further south and west, to the time-chamber and its competent crew. Hours of struggling brought them at last to a path leading up and into the mountain. With sighs of relief they stretched themselves on the ground to rest and eat.

They remained more than two hours, unmoving. It was growing late into the afternoon of the second day in the mad machine world (the wager for forty-eight hours was long since forgotten) before they resumed their journey, up the mountain pass and to the west, away from the strange, wonderful, terrible city to the comparative peace and safety of the desert, where lay, some two hundred miles away, the time-chamber and their retreat to the twenty-first century. Thought of that, and the easier nature of the road they now travelled, improved the spirits of the

expeditionaries immensely and they strode the mountain pass with a swing, almost a swagger.

"We ought to cross these mountains by nightfall," Gundry said as they stopped for a while at the summit of the pass. "By forced marches we may get to the time-chamber in a week or eight days. We shan't be in too good shape at the end of it, but that's the best we can do. Maybe the crew will send out a search party to find us."

Before taking the long easy slope down the further side of the mountain they turned to take a last look at the city, terrible scene of experiences they would never forget to the end of their days. By now the devastated area in either direction was aswarm with salvage and repairing machines, scurrying antlike over shattered buildings, hauling, lifting, carrying, building. Further on the towers of the city still raised their proud heights into the sky as if defiant of invaders, and in the great motorways the traffic flowed in solid streams north and south. But on the river the scene had changed. The ships of commerce were gone and in their place were squadrons of slim, sleek grey shapes from whose decks protruded low streamlined turrets and the sinister barrels of heavy-calibre guns.

## CHAPTER VI

**A**T A CAVE at the end of the pass they spent a fairly comfortable night, with a log fire collected from the surrounding brush and scrub of the desert. They had agreed to rise and move on at dawn. But in the chill of the early morning hours, Gundry, who was keeping watch, was surprised by a sudden dull boom of gunfire and the



high-pitched whine of shells. Six shots followed in succession, coming from somewhere up in the mountain. Taking a gun he strode out into the pass to scan the heights.

Gunfire broke out again, high up and a little to the north. Gundry saw angry flashes, saw them break out one after the other in a long rippling far away into the distance. Then guns boomed south of the pass, intermittently at first, then with increasing intensity until the whole line of the mountain chain was ablaze from end to end. The air shook with thunder and lightning, shuddered to the whine of shells. Whoever the enemy was, he was taking punishment from a barrage of tremendous intensity. From where he stood on the pass Gundry could get a rough idea of the artillery's numerical strength by the coruscation of flashes above, and he was convinced that those visible alone must be numbered by hundreds. Before long he was joined by Janning and the others, roused and attracted by the din. The spectacle, even to the men almost injured to the wonders of this world, was awe-inspiring. They questioned, speculated, wondering how this new development would affect their chances of escape. Gundry, who looked at ease or danger with the same emotionless calm, gave small hope.

"There's no getting through a barrage like that," he declared, "we'll have to sit tight until it recedes and the attackers go over. If we follow 'em we may get through whatever is on the other side."

"Attackers!" cried Farren. "Who on earth can be the attackers in a fool of a world like this? Do you think those batteries will break loose and attack, or will it be battalions of those impossible motorbike things?

Man, my head is going round in circles with all this."

"You're worse off than I am," Kellogg was smiling. "I remember I dreaded returning to this world after seeing such things as we have seen, but now that I'm used to it I find it interesting. Think of the amount of speculation there is in it. It is as plain as a pikestaff that for all of Janning's brag mankind has gone under, to be superseded by these intelligent machines. For we are all agreed that these wonderful things have intelligence. After thinking, I will go even further and say that they have a temperament."

"And how can machines possibly have a temperament?" demanded Farren, the barrage forgotten in the absorption of a possible debate.

"Easily. Remember the quite unintelligent machines of our own world. While kept in order they functioned perfectly, but if anything went wrong, if a speck of grit got into the wheels, the machine went bad. A speeding auto, a controlled, efficient machine, burst a tire and skidded dangerously in all directions, killing and destroying. An airplane would fall out of control, a wild, helpless, destructive thing. A mad machine is terrifying, even the normal unintelligent machine that we know. But when machines evolve an intelligence—and then go mad—well, we have such a world as this."

"Good God! What a thought! But it's as logical as any other."

**T**HE BARRAGE went on for hours before any change was noticeable. It was not definable at first, but by and by a new sound mingled with the crash of guns above, the unmistakable concussion of bursting shells. The enemy was hitting back and hitting hard. He continued hitting, and



both sides pounded away at each other until the sun was well over the mountain peaks. From the cave mouth the men watched the course of battle intently. The prolonged spectacle of bursting explosives grew monotonous, but the tension, the waiting for whatever unguessable danger would spring out next, kept them keyed up at high pitch throughout the whole long vigil. About mid-day, Gundry, who had been surveying the desert for some sign of the enemy, reported movement on the horizon.

"Can't make out details but there's plenty of 'em," he said. "Coming this way."

It was a vague dark cloud in the distance that resolved itself soon into a host of shifting specks. Before long they were identifiable as moving vehicles. They enlarged rapidly and were seen to be spread out in broad formation right across the plain. Their details became visible through binoculars and Farren's first question was answered. These were attackers, the first wave of them.

Tanks. Enormous tanks. Great rolling masses of steel, mobile forts built to cross mountain, plain and jungle, fighting as they came. Field-guns protruded from the streamlined barbettes crowning them, belching fire. Between them scuttled myriads of smaller tanks, of about thirty tons weight, blazing away with lighter artillery and machineguns. Behind this fleet of desert battleships came huge armored cars carrying still heavier guns, coming more slowly and firing with precision. Right at the back was mobile artillery, great howitzers mounted on tractors. These stopped at last, settled themselves and fired ranging salvos which developed rapidly into a counterbarage. The tanks rolled inexorably

on to the foot of the mountains amid a deluge of shellfire. The earth quaked under the bombardment. Gundry estimated that the defenders had guns of twelve-inch calibre at least, far back behind the mountains, firing over them, getting ranges by means unknown.

A terrible, majestic sight, that attack; but equally terrible was the defense. For the first time the expeditionaries saw that the guns had come down the mountainside and were visible. Machineguns crouched behind rocks, sputtering flame; long, slim anti-tank guns nosed out from cover and poured a withering fire into the lighter tanks, joined by light mortars that barked in chorus further up. Higher still, but just visible, were the six-inch howitzers, firing rapidly into the further lines of heavy tanks. Despite the volcanic destruction they faced, the huge machines rolled on and up.

Up and over they went, crushing the first line of machineguns and anti-tank rifles in their path. These light pieces had scarcely made dents in them. Even six-inch shells seemed to make little impression. It was only frequent and direct hits from the colossal twelve-inch pieces back in the mountains that offered serious resistance. This fire grew heavier, more frequent and more accurate. The earth shuddered and shook. Scarcely a mile from the watching men a tank blew up in a column of flame, struck directly by a twelve-inch salvo, and in the cave rocks loosened and fell from the roof. It was time for retreat. The cave might be blocked by falling rock and the men entombed, but the risk was better than the certainty of destruction in that rising inferno, for tanks were advancing upon the pass and shellfire



grew perilously near. Gundry shouted for the retreat.

THE CAVE proved to be a long tunnel and a draft of air indicated that it was open at the other end, providing a safe exit in case the first end became blocked. The men went in deep, guided by their powerful torches, and far within, when the noise of battle was deadened, they accepted the inevitable and struck camp again. They were there all day and the following night. They knew nothing of how the battle progressed. Saw nothing of the initial success of the giant tanks as they ploughed their way to the top of the mountains; nothing of the heavy losses the tanks sustained, or of their final defeat and annihilation when the huge artillery pieces finally got the exact range and scored one direct hit after another, rending and smashing the great machines like heavy boots trampling on a child's toys; nothing of the fast and furious counter-attack, when wave after wave of heavy tanks, smaller than the first monsters but still huge, poured out of the mountain passes and rolled down to the armored cars and mobile artillery on the plain like a flood; or of the final destruction of an enemy that never retreated but continued to fight blindly and insanely until it was smashed out of action for ever. The men only sat and talked, wondering—wondering—

Until at last a silence settled over the world, a silence that might have meant the end of the world. Deep in the cave the expeditionaries felt that the tortured earth was at the end of its agony, that the machines that made it their battleground no longer ran riot over its face, and that it was now safe for men, once Lords

of Creation, to come into the open again.

The wrack of battle was spread away all over mountain and desert as far as the eye could see. Here lay overturned guns; there, wrecked tanks and armored cars; great slabs of steel plate and broken gun-barrels, or just mere masses of wrecked, mangled tortured iron. The men picked their way through the fantastic maze, heading briskly westward by Pascoe's compass. But though their steps were firm their hearts were heavy and their minds clouded, preyed with the unspoken thought of Kellogg: that they were mere helpless insects in a jungle of metal carnivora. Even Janning failed to recapture his normal truculent defiance. His helpless arm and shoulder, which was not improved by lack of proper attention, sapped the splendid strength of his wire-and-whipcord body and lowered the resistance of his sturdy mind. Worse than anything was the overwhelming evidence that seemed to prove that Kellogg, with all his morbidity, was right. Worst of all was that horrible, that unbelievable element that made these impossible machines still more impossible—the dark, sticky liquid that flowed sluggishly from the machines and stained the sands of the desert a rusty reddish-brown.

"In my worst vision of the fall of Man," murmured Kellogg to himself, "I never imagined that machines would shed blood."

Gundry had seen service in the French Foreign Legion and knew what forced marching meant. He got the expedition going at a hard, steady pace with five minutes breathing space at the end of every hour. Of the five men he was the only one who had kept in mind the ordeal in front of them, the journey of nearly



two hundred miles across desert land to the time-chamber.

Being a man who took facts as they came he just shrugged his shoulders and thought no more of it. But he was wise enough to keep the knowledge to himself; no sense in giving the others something more to worry over—they would come to that soon enough.

**A**T THE end of six hours marching they stopped for a meal. They were still in reasonably good shape, and had been lucky enough to come across a clump of trees and scrub in which was a good fresh-water spring. With good stocks of water and feeling thoroughly refreshed, they resumed the march. By now they were drawing away from the enormous battle area, where devastation seemed to spread away as far as the range of super-heavy artillery permitted. It did not change, that silent landscape of smashed and twisted metal. An iron army had ridden out of nowhere, and in the desert had been annihilated. It seemed to have been completely self-contained and selfsupporting, for there were no signs of supply trains or any of the regular support of a human army. But obviously these things had come from somewhere, as had the air fleet. Another city, no doubt, further away to the west and beyond the location of the time chamber; and these two cities were at war. Machines at war! What could their motive be—how could they possibly have a motive? That question sank back dully into the subconscious minds of the expeditionaries as they put their backs into the task of covering the longest possible distance in the shortest possible time.

Some twenty-odd miles from the mountains the damage was less

heavy and less widespread. Direct hits had been much fewer, and though all machines were immobilized, still many seemed to be undamaged. Some guns remained upright, as if ready for firing. In their path the expeditionaries came across a light tank, one of the thirty-tonners, partly overturned but leaning against a rock that supported it. There was a gash in its upper turret, over which was a mess of dried and hardened blood, but otherwise it seemed undamaged. Gundry had an idea and climbed up the back of it to get in.

Twenty minutes of examination told him what he wanted to know. The tank was, of course, a kind of super-robot and was now out of action as far as driving itself went. The blood had gushed from some case below the turret, but that was too smashed to show anything; the machine, if intelligent, had been "killed," but the mechanism was still there and it was practically the same as that of a twenty-first century tank. Gundry called to the others who were examining the outside, and announced cheerfully that from now on they could drive to the time chamber in comparative comfort. Wearily but in better spirits, they piled in.

There was room enough inside the machine and it travelled smoothly, but the noise of it and the abominable mingled odors of oil and blood took away all pleasure from the ride. When gear was stowed Farren tried to clear away the mess of blood with the sleeve torn from his shirt and a canteen of water, and so made things a little more comfortable. Janning, glad to rid his mind of Kellogg's somber theorizing, dragged himself around to examine the machine's armament. It carried a three-inch gun amidships, still in firing order, a ten-pounder in the upper turret



which was damaged and two heavy machineguns, one out of order. It had entered the battle without firing a shot and the magazine was full. Janning felt better after that.

With Gundry's skilled piloting they made seventy miles an hour across the open desert. Scrub and trees thickened, and by low ranges of hills were occasional small woods. The tank ploughed through one of these woods in its path, rolling down stout trunks like twigs, over hills taking steep gradients without slowing. From this range a road curved out to the west and Gundry made for it, speeding as he went. At one hundred and twelve miles per hour the tank reached maximum speed. Soon they reached a main-road crossing, where other cars joined them and sped toward the buildings of a village or small town which showed themselves in the distance.

**I**T WAS a small town, and part of it was on fire. As the tank rolled through the outer suburbs the noise of gunfire and crash of falling buildings was heard. The streets were thronged with racing, roaring motorcycles, all carrying guns, heading for the further side where the trouble seemed to be. The tank was not noticed at all, save for machines that carefully scuttled out of its way, and it seemed to be taken for granted. Nothing loath, Gundry followed the stream and the others limbered up their weapons. Janning and Farren went in the fore to stand by the three-incher.

The town was a derelict place with many buildings fallen as if from age and neglect, and the road was in a bad state of disrepair. Potholes were plentiful, not large enough to incommode the huge war-machine but quite an obstacle for the motorcycles,

which bumped and pitched over the roads and frequently overturned, and overset others in their wake. The tank bored on flattening these heaps of fuming wreckage under its tractors, shoving aside any luckless machines not spry enough to get out of the way. Ready for still more action if need be, the expeditionaries stood ready at posts within. In the centre of the town the road passed through a broad square, divided by gardens, and on the further side of this houses were aflame. The square was almost blocked with stationary motorcycles and small tractors with mounted machineguns that poured fire into the roads and houses before them, and from these places, from invisible sources, a small but powerful volume of fire was returned.

"Who in hell is fighting back from cover?" demanded Janning, with something of his old fierceness. "The machines have been fighting in the open—damnation, do you think—?"

He caught Farren's eye. For an instant they gazed breathlessly at each other, amazed, questioning, incredulous, each with the same thought.

"It's impossible!" Farren cried.

"I'm damned if it is!" shouted Janning, "Come on, Gundry, into 'em!"

The tank smashed its way across the square under the soldier's firm, skilled hand, straight for a road strewn with debris from blazing buildings on either side that were about to collapse. Immediately the defenders concentrated their light but bitter fire on the new attacker, but above the noise of gunfire Janning's straining ears caught the unmistakable sound he listened for, the shouts and yells of despairing and defiant *men*.

"Don't shoot, blast you!" roared



Janning unreasonably, "We're friends, allies, we're fighting with you!"

Then they were in the inferno, steeljacketed bullets bouncing like hail from the sides of the tank. Behind it sounded the roar of high explosives and the collapse of undermined buildings. The road now was blocked and impassable to either side. Well past the blazing line the expeditionaries found bullets striking the machine in the rear. Gundry swerved the tank round till it faced the attacking machines.

"Give 'em a demonstration!" Janning shouted, and with swift and rapid assistance from the others the three-incher was loaded and fired at point-blank range into the thronged square. Shell after shell they poured at the attackers, a curse with each one, until the gun-barrel was almost redhot, the magazine empty and the square a mass of flaming wreckage.

Gunfire ceased. The war-machines were still and silent, still with victory or roaring to destruction. Janning did not wait but swung open a door in the side of the tank and leapt into the street.

"Come on out, you sons of a gun!" he roared, waving his uninjured right arm excitably. "Here's the relief force. Where the hell are you?"

They came. Doors flew open and out they came, armed and defiant but surprised and hopeful at the appearance of an unexpected ally. About a dozen of them. Men.

## CHAPTER VII

**T**HEY WERE a sturdy lot, rough, hairy, hardbitten young fellows dressed in skins cut with rude skill into fairly good clothes. They carried good rifles which they held at the ready,

though more from habit than from any suspicion of the expeditionaries. Janning flung down his revolver and ran to the foremost of them with extended hand. After one first look of amazement the man threw down his gun likewise and seized the proffered hand in both his, shook it vigorously.

"Done it at last!" he shouted, "Beaten the damn things an' got hold of one! Who are you, fella? What's your clan?"

Janning never had time to answer those questions. Came a sound of fast and noisy machines and a squad of motorcycles rounded a corner, that burst into gunfire on the instant. Half the little group of men was mown down before they could shoot back, before the one-handed Janning could get out his other gun, cursing as he fumbled. He heard late yells of warning, the roar of guns on the tank. His gun was out. A charging machine was almost upon him, shooting wildly. A chance bullet smashed his gun-hand, then a huge body swept him aside and from the corner of his eye he saw for an instant the man whose hand he had shaken, charging at the machine with a gun raised like a club. Something like a redhot iron seared his scalp and then he knew nothing more.

He came to slowly, his mind a confused blur and his body a mass of pain. There was noise around him, things shaking, and the sound of voices. Brandy went down his throat, scalding. He choked, gritted his teeth and tried to sit up, supported by a friendly arm, to find himself looking into the fine, open features of the man who had saved his life. He grinned faintly through a gasp of pain.

"Mighty good work, fella," he gritted. "I'll do—ugh—as much for



you, some time," he coughed heavily, shaking his whole frame, "and where the—hell—are we now?"

"Nearly back at the time chamber," he heard Kellogg's soothing voice. "Don't excite yourself, Jan-ning. You're in no fit state for that."

"Hell!" He struggled to rise but Kellogg's firm hand gently held him back. He relaxed, panting, looked up at the man of the thirty-first century. "What's your name, brother?"

"Smith. Just plain Jim Smith. The fellers here told me you are the time travellers we read about in the old histories. No wonder you could beat these damned things. In your time the machines had no brains an' you kept 'em in their proper place. Things have changed since then—and how they have!"

"So we've seen. How did it happen? What is all this damned place, anyway?"

"**T**HAT'S quite a story." The man called Jim Smith leaned back on the oil tank where he sat and stretched his legs comfortably. "'Bout time I told you, since you must have come here to find out things. Well, it was only a coupla hundred years ago things got out of hand. The books say Man was on top of the world then. We'd got the whole planet under control, right from the weather in the upper atmosphere to the currents at the bottom of the ocean and gravity in the middle of the earth. We could travel to anywhere on the globe and talk to anyone anywhere else. We had super-machines to do all the dirty work for us. Nobody did a stroke of hard labor unless he felt like it, but we didn't let the grass grow under our feet. No, *sir!* We were a live race—we made things and did things.

There wasn't a damned thing under the sun we couldn't do."

"The twenty-fifth century, and all its glory," murmured Kellogg.

"You know it, eh? You been here. So you know the old books aren't lyin', as some fools say. Thank *you*, sir. Well, as I was sayin', things were going fine and large for hundreds of years and folks thought that all dangers were over. Hell, were they wrong!

"We had thinking machines then. They did no end of cute things like men could never do for themselves in a lifetime. But they were harmless. Nobody ever thought they'd become dangerous—they'd have laughed at the idea. But then some criminal damned fool who should've known better made a *living* thinking machine. Yes sir. Living. God knows how he did it, what salts he put on his wires and in his cells to make a steel thing work like a human brain, but I know 'it was something ghastly. Some composition with human blood in it. And the damned thing became alive.

"Clever? My God, was it clever! It must have been. With its half-human feelings it got the idea of reproduction somehow and it got to work building others like itself. Not big ones like the original, you understand, but smaller, down to the size of a watch (yes, we still know what watches are, even if we are half savages). It got the things hitched on to other machines, all kinds of 'em, so that they could operate quite intelligently by themselves. The thing became quite famous and influential by then, and it offered to run all machines on earth for the World Governments. Of course they didn't see through the idea and took the offer at face value. That tore it.



"Somehow the Machine got some fool idea that it was a superior being, and that it was meant by its destiny to rule an empire of superior beings. Most of all it was mad to produce its own race of superior beings and rule them. So nearly every machine on earth had these little brains of all sizes and grades of capacity fitted to them and they began to think and work for themselves and get the same mad-crazy idea of their boss into their tin skulls. When he thought he was ready he gave the order. And the machines struck. Very cleanly they did it too. It was the first war on earth for ages and to do the job they dug up all the old fire-arms out of the museums and shot the human beings wholesale. Very accurately and economically too. The Machine didn't want human bodies and human substances going to waste. He needed them to keep all his other machines alive and working.

"You see, these think-tanks have to have human blood and nothing else to keep them alive, and for his empire the Machine would not only need millions of gallons but a permanent reservoir of it for the future of his race. It probably annoyed him to be so dependent on human beings, but there it was. Anyway, he meant to preserve them as we preserved cattle, and feed on us in the same way.

"**H**E WAS just a bit too quick and a bit too cocky when he started, though. He got all the Governments out of the way and disorganized the mass of the people, and thought he'd done the trick. He forgot about the armies which the Governments kept up for show purposes. These armies had not been to war for centuries, but when they

realized what was happening all over the world and who was responsible for it they didn't stop to think. They went out on the war-path and bombed the Machine to bits. That may have stopped the worst, but there were still millions of machines left and they acted together like a body without a head—just thrashed and smashed around until there was hardly anything of the human race left. But some escaped. They got away into desert places and under the earth to places where machines never went, and they survived and kept human intelligence alive on earth.

"So that was that, and here we are. We've survived, and we were too deeply civilized to go right back to barbarism, though we've had a tough struggle to keep going. The machines need us for their own existence, need our blood and body-chemicals, and they hunt us. We keep out of their way as much as we can. We manage to get our food well enough, we've got weapons of a sort and books. Sometimes we can get things out of the old cities the machines have abandoned. That's what we were doing when you found us. But it's hellish risky work. We're scattered and disorganized, and we're still so plentiful and prolific the machines can hunt us and shoot us wholesale, and that keeps us disorganized. But our time will come. The machines don't seem to care how much they slaughter each other.

"Every other year or so they go to war with each other, town against town, city against city. Usually over hunting rights. There's a new war on now, and from what this here gentleman tells me you've all been through the front line. This desert has been debated land for years.



Every now and then when my clan risks a trip from the mountain caves out into the open we get chased by roving machines out of the cities. They're always squabbling over hunting rights—this is the sixth war they've had in the last ten years.

"So there you are, gents—my story in return for yours," Jim Smith stood up, stretched brawny limbs, "Not pretty, is it? But that's life, life as we live it today at any rate. Maybe you can jump a hundred years in your time-jigger and see if it's any better. Thanks for listening so attentive. I'm a teacher of sorts, when I can get hold of the right books, and hist'ry is my best subject. I always like a chance to spout about it, 'specially to intelligent, cultivated gents like you, though God only knows they are rare enough nowadays." He yawned hugely. "Hell, I could do with a smoke. Haven't had one in three months. Got any baccy, boss?"

Pascoe fumbled in his pack, numbly, mechanically, unmindful of the tank's bad ventilation and the danger from inflammable oil. His mind was too overcome by the man's appalling story, so casually told. For a while as Jim Smith rolled himself a cigarette no man in the tank spoke.

"**YOU** WERE right, Kellogg," whispered Farren at last, "Mankind is doomed. Did ever the eternal stars look down upon a wilder, more insane, more fantastic spectacle than that of a world where

man is a beast hunted by the creations of his own hand?"

"Yes," said Kellogg, almost inaudibly, "Imagine it if you can, try to believe that it is true—machines go to war for the right to hunt human beings!"

"You're wrong, damn you," Janing snarled, eyes blazing, almost feverish. He dragged himself upright by sheer force of will, gripped Jim Smith's arm as hard as his wrecked right hand allowed. "We're beaten all right, but we're not broken. We never will be. You're a man, Smith, and I'm proud to know you. We're coming back, I say, in the time chamber, and we're coming ready for a campaign. We're bringing armament. We're organizing every man-jack alive on earth and we'll wipe that damned crawling junk-heap right off the face of it. We will, I say! Won't we, Jim?"

Jim Smith took the weak, feverish man by the arms and lowered him gently to a sitting position, stared into the indomitable eyes with a look of friendliness, almost tenderness. He'd looked on strong men suffering before.

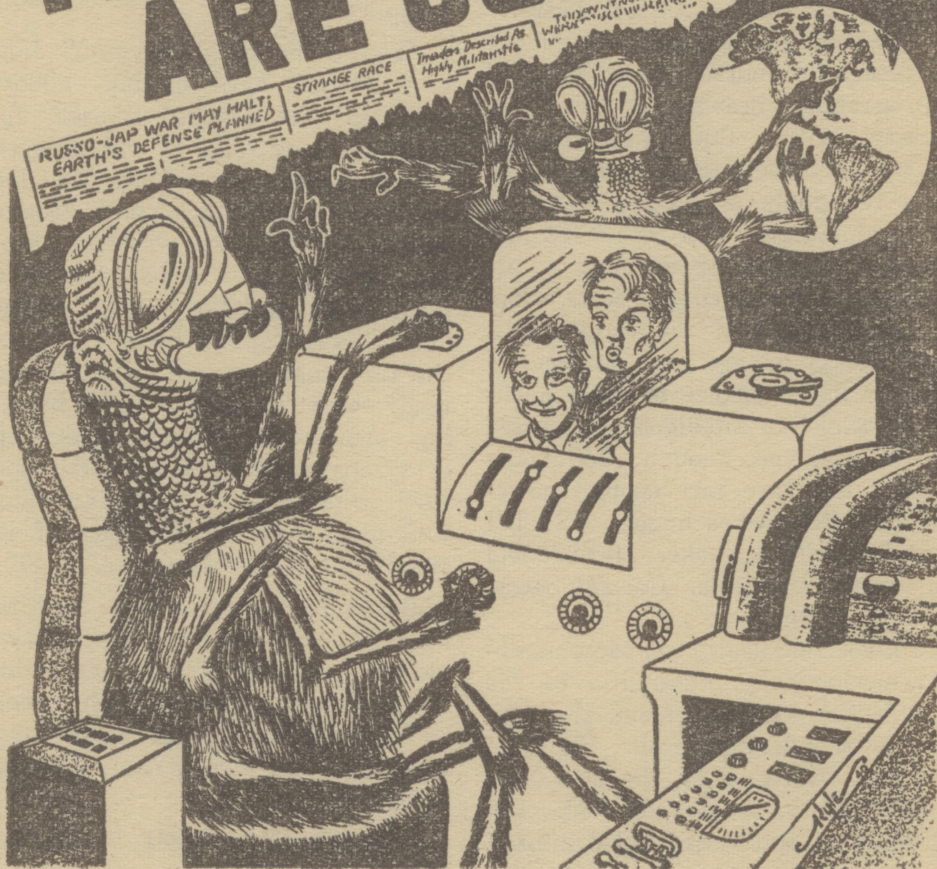
"Brother, we're going to do just that."

Gundry said nothing. His latest campaign was over, and scarcely a mile in front of his victorious machine stood the time chamber and its means of a prudent, orderly and strategic retreat to the security of the twenty-first century.





# XTRA DAILY AD THE MARTIANS ARE COMING



by Robert W. Lowndes

(Author of "A Green Cloud Came," "The Abyss," etc.)

When the inebriated experimenters invited the Martians to come to Earth, they didn't really mean it, but when the Martians took them at their word and sent a thousand armed ships...

**W**HITLOWE'S EYES bulged; as if in a trance he continued working the can-opener around and around the container of beans. "Gary," he

called softly. No answer from the cellar. "Gary!" he repeated, raising his voice slightly. At the noise, the wicked serpentine head before him swayed and grew nearer. A side-



winder, thought Whitlowe, and here am I with nothing more lethal than a can-opener near me. What was holding up Gary?

A big head poked through the cellar door. "What's eating—?" his colleague began. Abruptly he glimpsed the rattler and disappeared down the cellar again. "Traitor!" hissed Whitlowe from the corner of his mouth. The snake darted its tongue convulsively and the man cranked at the beans convulsively, not stirring a centimeter from the kitchen chair. One move, he thought, and—

*Blam!* The snake collapsed as if it had been cut from a string; Whitlowe dropped the beans, and the can went clattering along the floor. "Thanks," he said not turning. Then he stood up shakily, reached for a bottle. When a full half-pint of the stuff had gurgled down his throat, he mutely passed it to Gary. The big man frowned and put it down.

"No time for comedy," he commented. "Do you see any more around?"

"Wasn't that one enough?" asked Whitlowe, spurning the limp corpse of the rattler. "I spilled the beans for its sake."

Gary was reloading his pistol. "Now that's settled," he said, "let's start unpacking. I don't think there's anything more dangerous around now than mosquitoes."

"That's okay—I'm well anointed with citronella." They passed into the living room of the shack and attacked divers well-padded boxes and crates. Whitlowe tore off the top of a huge case and smiled happily. "Sweet of you," he murmured, lifting from its depths one of many gleaming bottles.

"Okay," said Gary shortly. "If you can't work when you're sober, then I have to do the logical thing."

There was silence for a long while as the two scattered haphazard bits and sections of apparatus on the plank floor of the shack. A yellow-jacket buzzed aimlessly about until, having made up its mind that Gary was planning it no good, it veered from its course and stung him on the elbow. "Dammit!" roared the big man, slamming his huge palm against the insect. He turned slowly on Whitlowe. "You!" he said, breathing heavily.

"Cut it out, Gary," begged his colleague. "We've gone over it all a dozen times."

"You miserable little drunk," whispered Gary poisonously; "not enough that you lose us a good job, but you have to publish a declaration to the world that *we*—just a couple of half-baked feature writers—are going to communicate with Mars!"

"Well," hedged Whitlowe, "it seemed like a good idea at the time." Then, with a flash of spirit, he snapped: "And what's more, we can do it! We didn't work three years of overtime for nothing—you'd be just content to stick at the grind until people got tired of us and we were canned. Our Public! What a prize collection of chumps and mutts they must be to swallow the tripe we've been dishing out. 'Will Future Man Be Bald?' 'Will Giant Ants Rule the World?' 'When the Moon Falls, What?' It's about time we quit that junk and *did* something. You'd never have dared to publish our findings, so I did."

Gary grinned sourly. "So here we are in the great North woods," he stated, "the eyes of the world on us, and loaded down with scads of equipment paid for by subscription. And if we don't communicate with Mars, where are we? In jail, that's where—fraud—obtaining money under



false pretenses. Hell! Let's get to work!"

**A**BOUT THREE HOURS later empty bottles and a maze of gleaming tubes indicated that something had been accomplished. "And a good job, too," proclaimed Whitlowe, rocking on his heels.

"It'll do," grunted the other. "How about power?"

Whitlowe unpacked a new fuel battery, then proceeded to make intricate alterations on it with the aid of the junk piled in the center of the floor. "What setting?" he asked, fingering a dial.

"Lowest possible amperage; highest possible voltage."

"Right," answered the small, dark man, fumbling with a pressure switch. He connected the heavy leads of the battery to studs in the mechanism. Gary slid indicators on a computing machine, referring to a planetary chart. "It's aimed," he said, lifting the weight which set a clockwork mechanism into motion. Quiet ticking meant that the thrice bent beam of the apparatus was following Mars in its sweep about the sun.

"Is it aimed?"

Gary nodded. "Any time you say we can turn it on."

Whitlowe reached for a bottle and fortified himself. "Okay — I'm ready." He placed himself before a compound lens as big as his head and snapped on a battery of cold mercury vapor lamps which bathed him in a metallic glare. Silently Gary turned a key and closed a simple knife switch. Their four eyes swivelled automatically to a copper plate set screenwise in the tangle of operations. There were a few flashes of light, then the screen went dark.

"Something's wrong," muttered

Gary, then, as he turned to Whitlowe, "Hey, watch yourself!"

"What?" asked Whitlowe, stumbling against the battery. Tsk, tsking, he reached down to replace the connections he'd jarred loose. Now which went where? He put them in feeling more and more sure that they were bollixed up. One seemed to be left over, then he remembered that it was the other half of a double connection. "Eenie, meenie, meenie mo!" He rammed it home and straightened up with a happy smile.

"Pretty high up," said Gary thoughtfully. Whitlowe gasped: with disconcerting suddenness a scene had leaped onto the plate—unstereoscopic and without color, but recognizable.

Gary turned a heavy wheel the smallest fraction of a sector; the scene went black. "Field of vision went underground," said the big man. He reversed the wheel with a lighter touch; the screen changed from black to reddish brown.

"City!" gasped Whitlowe.

"Yeah." Fascinated, they scanned the copper plate. It was as though it were hanging about five feet from the street of this Martian metropolis, while scurrying creatures about the size of men darted dizzily about on all sides. There were no vehicles to be seen.

The two men looked at one another. "Very ordinary, I think," said Whitlowe.

"Seems as if you're right. Frank R. Paul would be horribly disappointed. Wonder if they have eyes."

"We'll soon find out. Unless our calculations are imaginary, a visual image of this plate, showing whatever is directly before it—in this instance, us—should be neatly projected just a bit above their heads. They ought to see the plate before long."

One of the darting creatures was



heading straight for the plate, its knobby head down. Some thirty feet away it stopped short.

"Hyperperipheral tactility," muttered Whitlowe. "Why doesn't it look up?"

The creature did, obediently. "I was shielding my eyes," it remarked over the scores of millions of miles. "You are very brightly lit."

Whitlowe switched off half of the merc battery. "That better?" he asked.

"Yes, thank you," replied the creature.

"May we ask some questions?" broke in Gary, thrusting his head before the lens.

"How do you do? Certainly; whatever you wish."

"About our communication, first. We can understand you because we had an operation performed on what we call the Cheyney-Biddle area of our brains. This so converts and awakens the translation faculty that any language not too remote from Terrestrial thought-processes becomes intelligible to us. Are you actually speaking—vocally, I mean?"

"Hardly," replied the creature with a sort of whimsical inflection. "It seems most probable that this operation of which you speak has had more far-reaching results than you think. You are enabled to receive basic thought-impressions and translate them into your own language. Most likely your friend does not receive the precise impressions as you—the wording is different."

"But what of you?" asked Gary. "How do you receive impressions of us?"

"I'm sending through a sort of static discharge engendered by the friction of two special members. I perceive your thoughts as etheric disturbances. Interesting, isn't it?" The

creature's mask-like face contorted and grew lighter, as far as they could judge from the monochrome of the screen, but these changes were accompanied by a wholly non-existent burst of rich laughter from the sounding unit.

"I wonder," said Whitlowe, "what that sounds like to an ordinary person."

"Probably a creepy conglomeration of totally unrecognizable sounds," replied the creature. "And now," it went on, "may I beg to leave you for awhile. You two are pretty gruesome-appearing monstrosities to me, and I can feel a psychological revulsion coming on. I think you'll feel one, yourself, pretty soon. Suppose we switch off and contact later; after we've become accustomed to each other, it won't be so bad. But, just now, the first enthusiasm and scientific elan is beginning to wear off. I'll be sick as a dog in a few moments."

Gary grinned. "I wonder," he mused, "what the Martian equivalent of that phrase *really* is—if it exists in the first place." He waved goodbye to the creature and turned the wheel abruptly. The screen went black.

A few moments later Whitlowe was leaning over the sink. "Get a move on," said Gary weakly, "it's my turn now."

**T**HE MARTIAN was friendly. It brought around several spidery friends who stared through the window and answered questions as well as they could. One imposing, Daddy-Long-Legs finally appeared and the others made way for it.

"Hello!" it said abruptly.

"How do you do?" answered Whitlowe. "Are you an official?"

"Official? Bah—Director, young man—Director!" grunted the Martian.



"Did he say Dictator?" broke in Gary.

"Director," corrected the Martian. "Coordinator - in - Chief. Chairman. President. Planet Manager."

"Oh!" replied Gary.

"Now—about this thing of yours. I mean your dashed window, or whatever it is."

"Yes?"

"Understand — friendship, cordial relations, interchange of ideas, and all that—but privacy. Insist upon privacy. No prying without permission, understood? Agreed?"

"Certainly. Anything else?"

The aged creature considered. "Yes. There is. Young man—you might as well know that we're in desperate straits up here. Carry on, and all that—but no show. Understand?"

Whitlowe was trying not to laugh. It had been such fun to think of the Martian as a member of the British aristocracy. And now all the speeches came out to correspond to his impression. The more he tried to control himself, the more stagily English the Martian speech became.

"I'm afraid not, your excellency," said Gary.

"Pah! Water, you know. Going fast. Rationed as things are—haven't had a water-bath for years. Dashed impertinence—chap of my age and all that. What I mean—understand?"

"No," replied Whitlowe.

"Uh—no? This contraption of yours—thingumbob—just what can it do? How does it work?"

"It's almost wholly psychological," explained Gary. "Our apparatus"—he tilted the lens a bit so that the maze of equipment could be seen—"is only a sort of transformer for stepping up the latent clairvoyant faculties of our race. You're working on our power, you know—you

don't seem to have the faculty yourself."

"Ah? Your power precious? I mean, I should go off?"

"Not at all!" cried the Earthmen. "We have all we need and then more."

"Oh. Wouldn't want to inconvenience you. We Martians—quite considerate and all that—have to be, you know. Even though we did lick the damned mammals once before. Understand?"

"Nope. Please explain."

"Master race and all that. Conflict—struggle. They or we. We won out—centuries ago. Still have records. Mammals—great ugly things with hair. Nothing personal—understand?"

"Of course," said Whitlowe, draining a pint bottle. "But what were you saying about water?"

"Yes. Water—damned ash of hydrogen—waste product really. But we haven't enough to go around. What I mean—can your contraption—thingumbob—send us some every now and then?"

Whitlowe looked around for Gary. "Excuse me, sir," he said hastily into the lens. "I'll have to find my partner before I could answer that. Cheerio."

He switched off the screen. "Gary!" he yelled, looking wildly around. No colleague. There was a smashing of glass from the cellar; quick as thought Whitlowe popped down the rickety stairs. The big man was wallowing in a litter of bottles, mostly empty, and crooning softly to himself.

"Gary! For—"

He looked up owlishly. "Not a drinking man ordinarily," he interrupted stubbornly. "But any time I find myself talking to a bunch of half-baked giant spiders eleven tril-



lion miles away—well!” He reached for another bottle and gulped noisily.

The little dark man grinned. “First time I’ve seen you stewed since college,” he stated happily. “If I join you, will you come up and consult with our friends? They want us to broadcast them some water—they’ve been thirsty for years and years.” He poured himself two fingers—widely separated, of course—of brandy and tossed it off.

Gary began to sob. “Poor things. Poor thirsty little Martians. With all the water we have here on Earth, we can’t send them one little drop.”

“Yes,” agreed Whitlowe. “Poor Martians.” He finished the bottle.

Gary was weeping copiously now. “Did you see the way they looked at us? So friendly and trusting. Most sweet little spiders I ever did see. And they can’t have any water—can’t have a bath or a shower or a swim all their life.”

Whitlowe felt something big rising in his throat. “Something must be done,” he said. “In fact, something will be done.”

He rose to his feet. “Come,” he urged, “since Mahomet cannot go to the mountain; the mountain will come to Mahomet. We’ll issue a blanket invitation to the Martians to come to Earth and make their new home here. Plenty of water—plenty of big, beautiful wet water for everybody!”

Gary kissed him.

**W**HITLOWE SWEEPED BACK a lock of dark hair and faced the Presidium. “Gentlemen of the Committee,” he began.

“Nothing formal,” warned the chairman. “Just explain yourselves. And make it good. . . .” He tapped his teeth with a pencil.

An expression of quiet, self-assur-

ance passed over Whitlowe’s face. The oratorical tones in which he had uttered the first few words melted away. His voice bespoke sincere simplicity. “First of all, I must refute the fantastic accusations which have been hurled against me and my collaborator.” He gestured at Gary, slumped in a corner chewing his nails. “The assertion that we *invited* the Martians to come to Earth is ridiculous; under different circumstances I could laugh heartily at it. However, this is no time for joking.

“Let me say only that this canard is but another example of sensational journalism, something from which nearly all of you have suffered at one time or another.”

He paused to let the words sink in, and, from the expressions on some of the faces, saw that his words had had the desired effect. Then: “The true story, gentlemen of the committee, is easily and simply told—even if incomplete. You will see why it cannot be complete after a moment or so.

“We raised funds through public subscription and fitted out our equipment and apparatus thus; we proceeded to the isolated scene of our experiments and assembled this equipment—suffice to say that, after a few minor adjustments, it worked.

“The Martians were revealed to us as huge insect-like creatures. I would not call them insects, although perhaps an entomologist might find reason for applying the term. However, that is beside the point; what I mean is: in appearance, the Martians more closely resemble the insect than any other known form of Terrestrial life.

“From the start, our intercourse and communication was on a friendly basis. I confess freely that, from the nature and general run of our con-



versations, no thought of danger entered my head. Whether or not that was due, partly, to the influence that these creatures had upon us, I cannot say.

"Precisely when their attitude became menacing is also well-nigh impossible to state. We were being shown various sorts of machinery the Martians use when the—I'll have to use the term *ray* for want of a more adequate one—was run in on us. It had a sort of mesmeric effect; I distinctly recall doing things while my mind objected and while my thoughts warned me to shut off communication.

"My belief is that we have been made to forget a great deal of what we saw and perhaps much of what information we actually gave the Martians. It was only through accident—my falling over some obstacle and ripping out wires in the process—that communication was shut off. I think that is why we remember what we do; obviously the Martians wanted more information and, at the time of the breakoff, had not yet gotten around to blanking out, completely, our impressions of them. My opinion is, that, had not this accident occurred, we would have been forced to destroy our apparatus and forget the entire incident of our actual communication with Mars.

"For, gentlemen, it cannot be denied that the Martians menace us. Before the fortunate accident, we had been informed—the answer to a direct question in regard to some of the information we had given—that the Martians intend to migrate, as a race, to this planet."

He paused to glance at Gary. The big man had stopped chewing his nails and a look of haunted, self-castigation had filled his counte-

nance. "This would explain," continued Whitlowe, "the atmospheric disturbances observed on Mars last week."

His voice now became grim, assured. "Gentlemen, there is no time to be lost—the word must be *preparedness*—lest we be too late!

"Barricades must be erected; cities protected; offensive equipment set up. Earth must be ready to attack—and attack well—the instant these creatures land upon our planet. They informed us, early in the conversations, that they had superseded a mammalian culture on Mars; I have no doubt, now, in what manner this supersession took place. It must not be repeated here."

Wiping his brow, he collapsed in a chair beside Gary.

"It *was* a bit thick, wasn't it?" asked the big man cautiously.

"Maybe. But we have our own necks to think of first. Right?" ...

"I guess so—ah!" The Director of the Presidium had risen.

"Are there any questions to be put?"

"Grab your second wind," murmured Gary. "Here comes a cross-examination."

GARY PAWED LIMPLY over a sheaf of newspapers, running from the first headline: WHITLOWE-GARY EXONERATED to the latest line, proclaiming: JAP-SOVIET WAR OFF—PLANET SECURITY FIRST. "Did we do *this*?" he muttered dazedly.

Whitlowe's grin was satanic. "All ours. Now if this were only some harmless little hoax, designed to bring peace on earth, it would be fine. But, unfortunately the Martians are good and nasty—and well-heeled as far as armament goes, ap-



parently. According to the press reports, of course.

"They wouldn't have come if they hadn't been invited. However, it seems to me, that, once we try to welsh, it will be war to the knife. And I wouldn't be surprised if they did have terrific stuff up their sleeves."

Gary tried to picture the Martians with sleeves, but soon gave up. He scanned another headline: BALKAN STATES FORM DEMOCRATIC UNION. NO MORE WAR.

Gary poured himself an enormous mug of something, sipped at it, and set it down with a mouth of disgust. "Remembering what happened the last time I got tanked, I don't care to repeat the experience," he growled.

"Okay. It won't be wasted," grunted Whitlowe, emptying the mug. "Now, how about taking a crack at the communications angle—fishing for Martians in the depths of space . . ."

They turned into another room, filled with an elaboration of their previous apparatus, equipped with a scanner device that covered cubic miles of space, automatically registering and indicating foreign bodies. Dully they turned the thing on, and, after about a half hour of random scouting and reeling in meteors—celestial equivalent of rubber boots and old bottles—they came on a Martian, who smiled in amiable greeting.

Outside, newspaper headlines read: WORLD COUNCIL FORMED; CITIES OF EARTH PREPARE BLACKOUTS.

**G**ARY YIPPED agitatedly into the 'phone. "They're landing in about twelve hours, chief. We flashed them a little while ago;

Whit's still talking to them. He's got their flagship."

Blocks away Major General Wylie scratched his head. "Maybe," he said, "you can talk them out of landing—?"

"We'll try, General. I'll talk to Whit."

He hung up, whispered out of the corner of his mouth to the little man: "Stall them. Wylie says to try to stop them from landing."

Whitlowe, who had been exchanging politenesses with one of the Martians through the lens, wiped his brow. "Friend," he called across space in a strained voice, "perhaps you can disengage yourself long enough to permit us to speak with your Director."

"Certainly," replied the Martian. "He's been waiting."

The visage of the Planet Manager appeared in the screen. "Ah," he said bluffly. "Dashed grateful and all—you know?"

Oh Judas, Whitlowe groaned to himself, can't I forget that British affectation? But his innate sense of humor refused to be budged. "How do you do, sir?" he said lamely.

"Happy we're on our way at last, young man. Understand? Had our ships for centuries—wouldn't come without a contact and invitation from you—boorish and all that. Then you and your machine—thingumbob—you know."

"It's about that I wanted to talk with you. I'd like to know if you've brought any—armaments with you."

"Bah! Of course. Race of soldiers, understand. Military life—life blood of our planet. Always organized—deuced struggle for existence. Might meet wild beasts—disease. You think?"

"Very unlikely, sir. I'm sure we can cope with our planetary dangers



to your satisfaction. Why not lighten your ships for an easy landing?"

"What's this? Jettison our weapons? Unheard of, by gad! And the suggestion—if I may say so—dashed impertinence and all that. Nothing personal, of course—present company—understand?"

"Martian tradition?" asked Whitlowe hastily.

"Quite, young man. Just so. Millions of years. Dashed nuisance now, perhaps, but it wouldn't be the thing. No show—whippersnappers—understand?"

"Perfectly," said Whitlowe with a heavy heart. He tried another tack. "Where do you expect to land?"

"Right here—wilderness." The Director produced a globe of Earth, held a reading glass of enormous power over a tiny section. "You know the spot?"

"Yes," replied Whitlowe, studying it. "We call it New Jersey. Good place to land, too." To himself he prayed they'd fall into the middle of a swamp and stay there. "About how many ships?"

"In round numbers, two thousand, each containing a thousand Martians. We aren't a numerous people, but," the Director grinned, "a powerful one."

"Excuse me," said Whitlowe, reaching for the tracer device. "I'll have to sign off now. But we'll keep our lens on you till after you land. All right?"

"Perfectly. Carry on!" The Martian's image faded from the screen and Whitlowe snapped into action, reaching for two telephones at once and barking orders to Gary. "Get Wylie and have him mobilize all available infantry and tanks for concentration outside of Glenwood, New Jersey." And then, into one of the 'phones: "Mayor? I'm Whitlowe of

the commission. Evacuate Glenwood completely within four hours. Arrangements will be made for you in New York City—you'll get confirmation and full instructions in a few minutes." Then, into another: "Admiral? You'll get the chance, now. Move the fleet up the Hudson, aiming at the swamps to the North East of Glenwood, New Jersey. Confirmation from the White House and full instructions will follow. Firing orders will come only from the Commission."

He snatched a phone from Gary. "Public Works?" he barked. "This is Whitlowe of the Commission. Get every inch of barbed wire in North America and recruit every volunteer male you can get to have it strung around Glenwood, New Jersey's swamps. Deadline's four hours—they'll be here at"—he glanced at his watch—"eleven-thirty. Right? Right."

He turned to Gary with haunted eyes. "That's that," he said slowly. "It isn't a joke any more. I don't think I'll ever laugh again. Let's get out and give the unhappy town of Glenwood, New Jersey a speedy double-o."

UP THE HUDSON steamed the dawn-grey might of the combined battle-fleets of North, Central, and South America. Japan's was on the way, not yet there. They were anchoring; guns were swinging toward the Jersey side, ready to drop shells within the neat rectangle bordered by several hundred miles of twisted and double-taped electrified barbed wire.

"Well," said Gary, hefting the audio pack he was strapped into.

"Okay," said Whitlowe, taking up a mike and tuning in. "Do not be alarmed," he called to the Martian.



"This is a wound-circuit without vision—we are on the grounds where you decided to land, with a—reception committee, and were unable to bring along the heavier vision-circuit."

"You, is it?" the hearty voice of the Director replied. "Well, we'll be down in dashed little time—ready to start our bally lives over again, what?"

"Yes," said Whitlowe, gulping. He signalled an aide, who came running with record tape.

"No change in your landing plans?" asked Whitlowe desperately.

"None whatsoever. Decide and carry through—understand? Down in thirteen minutes, every one of the two thousand. Excuse me."

Whitlowe snapped off the set. "Can you hear anything?" he asked the aide.

"No, sir. But we should—two thousand big ships, didn't he say?"

"They each carry a thousand Martians, so they must be big. But we ought to hear them—or, if they're silent, we should feel the wind. I don't understand."

"Keep your shirt on, Whit," advised Gary. "It's these skeeters that I can't stand." He slapped viciously at a vampirish insect that settled on his wrist for a drink.

"I'm going to"—began Whitlowe, impatiently snapping in the audio pack.

"Hello!" he called. "Are you going to land? Where are you?"

"About twenty miles up," came the reply.

"We can't see or hear your ships!" stated Whitlowe.

"You will. We're ten miles down now. Excuse me—I have to—" the voice trailed off.

"Why," fretted Whitlowe, "don't

they come out into the open? Are they going to bomb New York or something?"

"Cut it out!" growled Gary. "They're on the level and they gave their word. That's enough. Anything else you can set down to newspaper hysteria. They should be in sight any moment now. Calm down!"

They were interrupted by roarings from the audio. "We've landed!" shrilled a voice. "We've landed!" Staring insanely, Whitlowe inspected the swamp area. "No!" he stated flatly. "Not a sign of two thousand ships, each containing one thousand Martians. Not a sign of anything."

From the audio came a cry of terror. "What's the matter?" yelled Gary, snatching the mike. "We're being attacked—by monsters! Huge monsters! Send help!" thundered the Director.

"Monsters? Like what?"

"Six legs; twice our height. Wings. Terrible blood-drinking beak!"

"They didn't land on Earth!" gasped Whitlowe.

Gary laughed suddenly. "Yes they did!" he roared. "Look there!" He turned the beam of his flashlight on a little dark clump in the air about a hundred feet away.

"What!" gasped Whitlowe, staring.

It was a turbulent knot of insects, distinguished by bluish flashes of light. Whitlowe lowered the beam to the ground below. There were arrayed the two thousand ships—tiny things, about the size of cigarettes.

"And that," said Gary, "is the Martian race. All bets are off, and, if we wish to save our insignificant but witty friends from the monstrous gnats and mosquitoes that are besieging them, we'd better rush out some Flit."



# MAN AND THE MACHINE

## AN EDITORIAL

With the first story in this first issue of our new magazine, we present what we believe to be the great underlying theme of our century. That is the question of man and the machine. We picked "Mecanica" because we felt that, besides being a powerful and brilliant novel of the future, it presented the case fairly clearly.

Who shall be dominant on this Earth? Shall man make machinery and science serve him, exist to allow humanity to increase further its triumphs over nature and the cosmos; or shall science's products override man, saddle him with a Frankensteinian assemblage of machines demanding from him lives, homes, time, and yes, his very blood?

We feel that that is the basic factor of our Twentieth Century. We feel that that is the cause of the present war, of the past decades of depressions, civil strife and social conflict. The struggle for man's adjustment in a world he has newly created—a world of machine toil, a world of efficiency, incredibly increased production, colossal promises and colossal threats.

The struggle to see whether these newly created mechanisms, these new arts, new sciences—electronics, plastics, chemistry, invention, power transportation, super communication, biologic discoveries—to see whether they will compel man to alter himself and his society, his customs and traditions, to suit them or whether

they can be forced to serve man without exacting some adjustment in turn.

As we see the world today, we see on the one hand a world of knowledge such as has never before been achieved by any living organism, on the other hand a world of war and increasing chaos such as likewise has never before existed. Science has built super cities and super factories, it has also built super bombs and super bombers. The machine cares nothing for morals, for emotions. It judges not, it decides not. It is for man to find a way of bringing harmony and the certainty of unimpeded future development out of the machine world in which our old society finds itself. It is that struggle for a new balance and a new adjustment that occupies the world of man today and it is the outcome of that struggle which is ultimately the subject upon which imaginative speculation must figure.

*Cosmic Stories* holds that the entire cosmos has become, by the inescapable promise of science, the rightful heritage of mankind. It intends to portray this heritage with entertainment and with intelligence, so that the readers may be both pleased and filled with faith that the world of the future, the Cosmic world, is worth the travail of the present. The editors of *Cosmic Stories* extend an invitation to join us in the contemplation of cosmic adventures to come.

Donald A. Wollheim, Editor



# CRYSTAL WORLD

by John L. Chapman

(Author of "Lunar Gun," "Another's Eyes," etc.)



Beware of Uranian s when bearing gifts!

**"B**ETA," said Martin Payne calmly, "belongs to me now. I thought you'd like to know."

The cabin of the little ship was as silent as a tomb. Nothing moved, save the changing panorama of rugged Pluto on the screens.

Dr. Henry Osborn looked at his assistant. "You stole Beta?"

"Yes. I couldn't think of a better time for it. Pluto—no cops—no nothing. I wanted Beta, so I took it. You forget, doctor, that it's not rightfully yours, either. You stole it from that Uranian prince—"

"Lies! It was given to me—"

"I won't quibble, doctor. I have Beta now." He held it before the doctor's astonished eyes. It glit-



tered brightly. "One of the rarest of outer-terrestrial jewels," murmured Martin Payne.

Osborn yelled insanely and leaped at his assistant. Payne dodged, and the scientist sprawled over the ship's control board. There was a sudden lurch.

The cruiser plunged toward the irregular crust of Pluto, spinning. . . .

**T**HE SNOW whirled in crystalline eddies about the old observatory's windows. Bleak, silent, the sharply-etched Plutonian landscape stretched away, its soft, white blanket lifting to meet the cold night sky. The crystals stood here and there, rising like pyramids from the wintry terrain.

Lance Griffith turned from the scene and paced the floor. His footsteps re-echoed across the huge observatory.

Gray-haired Lance Griffith, Sr. lifted his head from the eye-piece of the one-hundred and fifty inch reflector. "You're getting restless, Lance."

"Yes, I know. The place gives me the creeps. We're all alone here, Dad. The only other sign of civilization on Pluto is at Muir, and that's two hundred miles away. I don't like the silence—it's nerve-racking."

"I understand. I was like that too, when the Commission first stationed me here twenty years ago. But I overcame it. Since then, I've found Pluto quite enjoyable."

Lance stopped pacing and looked out the window again. "But if I had a little action—something to do besides being cooped up in the observatory—"

His father chuckled softly. "There'll be action, Lance. Pluto isn't always like this. And besides,

the Commission is looking upon you as my successor."

"I know," said Lance, forcing a laugh. "I'll have to like the place, won't I?"

Lance Griffith, Sr. nodded. "Sleep is what you need. I could use a little myself."

He made an effort to rise from the portable chair. All of a sudden he dropped back, a quick expression of pain crossing his face.

"Dad—" young Lance started forward.

His father recovered, waving him away. "Nothing Lance. I'm a little weak, I guess."

"Overwork," said Lance. "You'd better let me take over the telescope duties for a few days." He helped his father up from the chair and guided him into the living quarters at the back of the observatory.

The old man reclined on a couch. "Remember, Lance—awaken me if anything happens."

Lance laughed outright. "Nothing's happened on this world for years, Dad. Just go to sleep and forget all about it."

"Forget it? When I've lived here twenty years? Why, Lance—all right—I'll sleep."

**A** YEAR. One whole year. That was how long Lance had been on Pluto. He knew he would become accustomed to the bleak little world sooner or later, though at times he felt the loneliness would be maddening. It might not be as bad as he thought. Lance, Sr., had lived there for two decades. So could Lance, Jr.

Funny things, those crystals. Lance moved to the window and looked out at the landscape again. The crystals were there, vast, rugged chunks of iciness that protruded



from the sea of snow. They served as Pluto's landmark.

The observatory was a link to outer-galactic regions. It had been erected some twenty years ago by an interplanetary corporation of earth, since then being a determining factor in astronomical progress. Lance Griffith, Sr., had been its guardian. A year ago young Lance had been sent to the outpost to act as his father's assistant. In case the elder Griffith chose to retire, the Commission would appoint Lance his successor.

As Lance idly watched the scene outside, he detected a movement among the stars. There was a spark, a feeble red glow, moving slowly across the sky, dropping toward the distant horizon. A space ship!

It fell farther, crossed Neptune's face and began to increase in size. Its downward movement slowed as it swept about in circles and leveled over the Plutonian landscape a few miles away. Lance caught a glint of metal, silvery metal that constituted the hull-plates of earth ships.

The spark took a sudden dip, wobbled a moment, and streaked downward swiftly. A minute later it disappeared, lost in the vast expanse of snow.

Lance searched a moment in a cabinet and secured a pair of binoculars. They aided him somewhat, bringing to view the tip of the disabled ship. Lance watched for a few minutes, but saw no signs of life.

Someone had chanced the regions beyond Neptune, and had failed. Someone had made an unsuccessful attempt at a landing on Pluto. Grimly, Lance lowered the binoculars.

He could walk that far—it would take some time, but he could make

it, providing a storm didn't rise. But the return trip—what if the ship was beyond repair? He'd have to walk back then, and if anyone was injured—

"Dad!" called Lance, forgetting for the moment that his father might be asleep. A bit excited, he hastened across the observatory and opened the door to the living quarters. He stopped still. Something stabbed at his heart. He ran to the couch, but before he reached it he knew that his father was no longer breathing. . . .

THE Plutonian night was cold and blue. But Lance didn't feel the cold as he stepped from the observatory airlock in his bulbous space-suit. He was warm, though he knew that the stinging bite of the planet's atmosphere would penetrate the metal covering before long.

He looked back after he had descended the little knoll on which the observatory rested. The building stood massive and silent. For the first time since its erection it was uninhabited.

Lance turned and struck out across the snow. The crust was hard and did not yield under foot. But it was slippery, and Lance found it difficult to keep his balance.

He set his mark at a point directly between two crystals, where he had last seen the fallen space ship. He plodded on, his head lowered.

For two hours he walked. The two crystals loomed ahead. They were gigantic things—like great icebergs. The starlight made them sparkle.

Lance passed between them and traversed the crest of a long hill. Ahead, approximately a half-mile away, a dark object could be seen. After a brief rest, Lance moved on toward it.

He sighted something that he



hadn't noticed before. The dark object was the ship, all right, but it had landed directly in front of a rugged hundred-foot cliff. Not just an ordinary cliff. This one consisted of nothing but snow, loosely packed snow that could be jarred free by the slightest vibration. For example—the falling of the space ship. Lance knew what that meant. He had witnessed such things before on Pluto. And an avalanche on this little world was something to think about.

Lance ran forward, despite the bulky suit. Presently, he drew up before the ship's airlock.

The vessel had plowed its way through the snow for some distance, and rested at a slight angle, the nose obscured by a huge drift. Fifty yards beyond towered the cliff.

Before Lance could advance any further, the circular airlock snapped open and a bulky figure leaped to the snow. Quickly Lance turned on his intermittent phones.

The figure bounded toward him, and through the helmet's face-plate Lance saw a color-drained, haggard face. A heavy voice said: "Better run—the cliff looks weak."

"Anyone else?" asked Lance.

"Just a dead man." The figure passed him. Lance took a last glance at the little ship, and followed.

They stopped to rest a few hundred yards beyond.

"You're young Griffith. Right? Your father's guardian of the observatory."

Lance nodded. "I'm guardian now . . . temporarily anyway. My father was stricken with heart attack five hours ago. They're coming for him now—from Mulr."

The two stood in silence.

"Everything," said the stranger, "happens at once on Pluto. I'm sorry

about Griffith. Osborn's my name—Dr. Henry Osborn."

"I've heard of you. The other fellow?"

"Martin Payne, my aid. He was the cause of the accident. Stole a jewel from me. We fought and the ship went out of control. The crash killed him."

"You're not hurt?"

"No."

"Good. You've a long walk ahead of you, and from the looks of things, a storm's brewing. On Pluto that's bad news."

They hadn't walked ten paces before a cataclysmic tearing rent their earphones. They turned and the cliff seemed to explode before their eyes. It thundered for a moment, smothered the ship and raised a thin cloud of glittering snow. The noise gradually died away in the crisp atmosphere.

**T**HE WIND was rising steadily. Lance had seen windstorms on Pluto before. He knew what they were like. And it was getting cold—his fingers were numb. He slapped his hands against the metal legs of his space-suit.

Osborn plodded along behind him, stepping in the tracks he made. They said very little, only remarking about the deep snow and the sharpness of the biting cold.

The hill lay far behind them. Ahead, the two crystals stood hugely to either side.

Snow flurries whipped about them as the wind rose to a dull moan. The sky became dark; a few stars peeped through the snowy veil. The wind struck them from an angle, making it difficult to maintain balance where the snow was crust-like.

The walking became more and more unsteady as the snow swirled



about them and the cold numbed their limbs. They moved on, slowly, bent forward against the drive of the wind.

Then the gale increased, suddenly. A screaming, relentless torrent of wind struck them with intense ferocity and penetrating cold. It stopped them in their tracks, forbade them to move.

"Stuck!" said Osborn. "Now what?"

"We'll have to make for a crystal," said Lance. "It's out of our way, but it's shelter. We'll never make it if we keep on."

They turned off to the right. The wind was partly at their backs now, so walking was easier. Vision was cut off beyond ten yards. The tracks they made in the snow were filled again almost instantly.

The vast hulk of the crystal loomed out of the storm after they had travelled a few hundred yards. They were still a good distance from it, however, due to the illusion provided by its colossal size.

They stumbled along through the mounting drifts. Sheets of snow dashed away at their metal figures, swept upward from the wind-eroded ground, streaked away in mad whirlpools. The sky turned black.

When Lance looked up once more, the immense crystal towered directly before them. They struggled on for another minute, falling exhaustedly on the leeward side of the crystal. Overhead, the arching mountain of iciness protected them from the gale.

Presently Lance got to his feet. "There's one thing we can do," he said. "Give me your heat-gun."

Osborn complied. Lance lifted his own gun, aimed both at the crystal wall, and pressed the triggers. Amid a loud hissing, two fiery beams lashed forth. A vast portion of the

wall melted away. Lance fired away. The hole increased.

A third blast left a huge crevice in the wall extending some five yards into the base of the crystal. Lance and Osborn entered.

The terrific heat of the guns left a lingering warmth in the hole. It lasted for only a few minutes, but it was sufficient to remove some of the numbness in their limbs.

Outside, the incessant wind tore furiously around the crystal, its moan reaching a fierce, ear-splitting din. Blankets of snow swept about in angry gusts.

They sat there for several minutes, resting. Then Osborn asked: "The crystals—what are they made of?"

"Could be a lot of things," answered Lance. "No one ever bothered to analyze the stuff."

"It looks, and feels like glass," observed Osborn.

"Possible. Yet it melts—like ice. Its commercial value has never been determined." After a moment, "You mentioned this Payne fellow—stole a jewel, you say?"

The other nodded. "Payne turned crook when we reached Pluto. I had obtained the jewel on Uranus — he robbed me as we entered Pluto's atmosphere. I managed to save myself from the crash. Payne was crushed."

He lifted a metal hand and exposed the palm. Lance saw a tiny leather packet—it had been clutched by Osborn's hand all this time.

Osborn removed the jewel carefully, held it before Lance's faceplate.

"Beta," said Osborn.

Lance studied it closely. "Strange," he murmured.

"Why?" Osborn looked at him suspiciously.



"I don't know. Haven't seen anything like it before."

Osborn put it back in the packet, closed his fingers about it tightly.

"The storm's letting up," he said. "We can start out again."

"We'll have to. The gap I made is closing in on us."

They crawled through the narrowing hole into the open again. It was easier to walk now. The wind was not so strong and the snow flurries were no longer piling up in huge drifts.

They made their way around the crystal and set out in the general direction of the observatory. The snow was quite deep, and they sank to their knees with each step. But it wasn't the snow that bothered them. It was the cold—the sharp, stinging cold. The numbness set in once more.

Gradually, the sky cleared. The wind changed, suddenly, and pressed on their backs.

Vision returned. The darkness that had veiled the sky drifted away to unfold a swarm of icy stars. The cold increased as the wind receded somewhat.

Ahead, the observatory was a tiny knob in the distance, silhouetted against the night sky along with a row of rugged crystals.

"It's getting colder," remarked Lance, "like it does after every storm here. The wind blows for two or three earth days following. And it's the coldest wind in the system."

They came across the trail Lance had made on his way to the ship. It was barely visible—a path of light footprints leading toward the observatory.

Soon they emerged from the soft snow and came upon the hard, crust-like surface. They walked faster.

Lance's hands stung painfully. His body was numb, his legs stiff and

heavy-like. Osborn trailed in silence, his arms folded, clutching Beta to him.

A sudden gust of wind, sharp, biting wind, sent them tumbling across the hard snow. Lance stuck out his hand and caught Osborn by the arm. They stopped skidding, lay there in the snow as the wind howled over their heads.

Osborn pulled away and got to his feet, glancing at his hand self-assuringly.

NEAR exhaustion, they continued. The observatory was a little closer now, though Lance doubted the possibility of reaching it in such hellish weather. He prayed that the ship from Mulr had already arrived. It meant a chance of rescue in case they fell before they reached the observatory.

The stars glittered and danced. The old observatory became a weaving patch of black on the horizon.

Lance moved along doggedly, the wind's icy needles penetrating his space-suit, chilling his legs until he felt he could scarcely move them.

Osborn went down suddenly. Lance walked back to him, lifted him erect.

"We'll never make it, Griffith."

"You're crazy," muttered Lance. "We're almost there. No time to give up."

He turned abruptly and walked on. He didn't need to look back to see if Osborn was following him.

Minutes dragged by. The observatory swam before Lance's eyes. He was certain now—there wasn't a chance in the world. His strength was gone and he'd soon fall just as Osborn had. A couple of times, and he wouldn't get up again.

He struggled farther, bent against the howling wind. He would have sworn an hour passed. He looked up



finally, and the observatory seemed within his arm's reach. Enlightened, he continued.

He heard a cry from Osborn. He turned and the wind swept him from his feet, sent him rolling back. He clawed at the snow, stopping beside Osborn. The fellow was down for good this time—Lance saw that in just a glance.

There was nothing he could do but carry Osborn. This he tried, tramping only a few yards before the wind switched again and knocked him to the ground. He was asleep in a matter of seconds.

**"H**E'S coming around." The blackness before Lance's eyes was lifting.

"He'll be okay. The dark fellow's still out."

Lance opened his eyes. He saw a ship's cabin, felt the ship's swift upward motion. He turned and saw Blane and Foster, the two he had summoned from Mulr. Instantly he remembered.

"Foster was getting impatient," said Blane. "Didn't like waiting around the observatory. Besides, you were past due, so we looked into things."

Lance tried to say something, but fell back. He rested, then managed to reply: "Thanks . . . in the nick of time. How about . . . other fellow?"

"Doing all right. Can't pry that thing loose from his hand. What is it?"

"Jewel. Don't bother . . . not worth . . . a nickel. Everything else okay?"

"Sure," said Blane. "We brought a little good news too."

Lance turned his head and looked at Blane's red face. "Yeah?"

"They're going to move the telescope to Mulr next week. The obser-

vatory there is completed, you know."

Lance looked startled. "No—I didn't know."

"Old Lance knew," said Foster. "Guess he wanted to surprise you. Anyway, you won't be out here alone—not another minute."

Lance was too shocked to say anything.

Foster went on. "What's more—you won't be working alone in Mulr. The Commission is sending more men in an effort to further your astronomical exploration. They'll be arriving anytime now. Among them is Dr. Osborn—famous earth astronomer, they say—"

Lance sat up quickly. "Osborn, did you say? This is him—he was aboard the ship that crashed—"

Blane chuckled. "You crazy? We've seen his picture. This fellow's not Osborn."

Lance got up from the cot and crossed to where the stranger was lying. Ignoring the fatigue and cold that was within him, he bent forward and studied the dark, immobile face.

"—not Osborn," muttered Blane.

"Then who is he?"

"Search me. Maybe—"

The dark fellow's eyelids fluttered. The hand that held the tiny jewel clasped and unclasped mechanically.

Lance stepped back as the other opened his eyes and looked about the cabin.

"A mere case," said Lance, "of mistaken identity. It's Payne—Martin Payne. He's really Osborn's assistant. Osborn is out in the wrecked ship, dead. Payne was posing as him."

"And all for what?" asked Blane.

"The jewel, I suppose. That right, Payne?"



The dark eyebrows knotted. "Clever, Mr. Griffith." The hand closed over Beta.

"The jewel's no good," said Lance. "You robbed Osborn of something that wasn't worth half the trouble it caused you. I noticed that when you showed Beta to me in the crystal. It's funny you didn't notice it yourself."

"You're out of your mind," snapped Payne, leaping erect. "Osborn got this on Uranus, and it's genuine. . . . I know it is!"

"Then you admit the crime? Don't bother, Payne. It's three against one. Besides, I'd like to have you know about Beta. It's become a habit of outer-terrestrial rulers to make priceless-looking stones out of a very common material. Strange how earthmen fall for it, and pay eye-filling sums for a little something that can be had by the ton if one looks far enough for it. I mean the crys-

tals you see all over Pluto. They've supplied the crooks of Uranus and Neptune for a number of years. They've been the origin of thousands of little Betas just like the one you're holding. It has a speck of value, Payne—it's no more than a chunk of some Plutonian crystal, and Pluto is covered with the things—"

"Catch him!" yelled Blane.

But they were too late. Martin Payne had hurled himself against the ship's airlock. There was a loud hiss and the lock snapped open, snapped shut. Payne grinned evilly through the glass portal. He waved his clenched fist, the one that held Beta, then turned and thrust open the outer lock.

He fell outward, silhouetted against rugged Pluto for a moment, and dropped.

When they dug him out of the snow a day later, he was still clutching the valueless little jewel.

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## GRAVITY REVERSED

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Theories regarding flight through space usually classify possible means of leaving the Earth's pull in four categories: Rockets, Projectiles, Centrifuges, and Gravity Reversers. The first has become the accepted probable means of such flight—it is the only one we are familiar with that solves all the questions. Both projectile and centrifuge propulsion, while theoretically possible, possess too many obstacles to practical use. The last-named means, the use of a reversal of gravity or of a gravity screen, remained purely hypothetical since science had never any indication that any such thing was within the bounds of Nature.

Only very recently, in the past few months, has there been found a phenomenon which may give the first practical clue to the existence of a

means of reversing gravity. During experiments in the freezing of helium towards absolute zero (a state of absolute heatlessness where matter reaches complete quiescence) it was discovered that at about two degrees above absolute zero, liquid helium had a tendency to flow *upwards* in a vacuum!

The tiny quantities of liquid helium moved upwards in the vacuum flask at the rate of about six or seven inches a second trying to force their way out of the top. Scientists point out that this may not necessarily indicate a tendency to oppose gravity, there may be factors involved which would explain it more easily. But meanwhile an anti-gravity flow remains one of the explanations of this phenomenon and if it is proven true we may be on the road to colossal things!



# THE MAN FROM THE FUTURE

by Donald A. Wollheim

(Author of "Planet of Illusion," "Bones," etc.)

The midget put on a very good performance

**H**E WAS obviously a dwarf but not exactly the kind that circuses and midget shows want. You see, he wasn't a perfect miniature because his head was as large as a full grown man's even though the whole of him only came up to our belt lines. There he stood by the door of the subway express looking more or less disinterestedly through the glass pane of the window at the local stations speeding by.

Jack and I were hanging on to a stanchion because the car was crowded. I was the first to notice him because I was facing Jack and the dwarf was just behind him. Jack glanced around when I nudged and took him in without being rude enough to stare too blatantly.

Having just come from a meeting of our science-fiction club out in Brooklyn, we still had all sorts of fantastic ideas on our minds. A science-fiction club, in case you're not familiar with one, is a group of young fellows who read the science-fiction magazines regularly, sometimes collect them, and like to meet once in a while to talk over the various ideas presented in them — like interplanetary flight, Martians, time travel and so forth.

It was not unnatural therefore that upon seeing this little man we should start to invent fantastic explanations for him. Of course we didn't believe them but it tickled us to whisper to each other that maybe the little man with the big head was a

Martian going about the city dressed in business clothes and hoping people would mistake him for a circus dwarf or something. Jack said that he couldn't be a Martian because everyone knew that Martians were at least eight feet tall and had barrel chests. So then I suggested that he might be a man from the future because everybody knows that men from the future will have very small bodies and big heads to hold their big brains in.

"As a matter of fact," I whispered to Jack as we were passing De Kalb Avenue, "he could play the part to perfection. His face is sort of odd. His nose is flat and pudgy, his features small, and his brow does seem to bulge over his eyes."

Jack stole another look at him and nodded but added, "But he has hair on his head and in the future everyone will be bald."

That was true of course but then we were only making believe. The dwarf had a fair crop of wiry black hair even though there was a little bald spot towards the back. I noticed too that his skin was sort of darker than the average and wondered if he could have a touch of Negroid in him.

I think that we both got the bright idea at the same time. There was a big national convention of science-fiction readers coming off in two weeks in New York. Why not engage the little man, if he was available of course, and have him come to the convention dressed as a man from



the future? We could fool a lot of people, get some newspaper publicity from it, and it would help out the entertainment committee no end. We fellows who lived in New York naturally had the organization of the convention on our hands and we had to keep thinking about what could be done.

It was a great idea; we could have odd clothes made for the dwarf to wear, and write him a script in the best science-fiction style to read.

Jack was always the more forward of the two of us and he approached the dwarf with a casual comment. I was a bit leery of that part for these midgets are often inclined to be very touchy about their heights and to take offense. However the dwarf took it in good spirit and proved to be quite amiable.

It turned out that he was not a circus actor at all. He didn't work for a living because he would have had difficulty getting jobs outside of freak shows, and he didn't have to work, fortunately, because he had a small inherited income. Or so he said.

He had a sense of humor anyway and saw the fun in the idea of attending the convention as a man from the future. He waved aside queries as to how much we would have to pay him as he said he would enjoy the stunt himself.

We met him a couple of times during the next two weeks at my place. He preferred that we didn't visit him and we didn't. He turned out to be quite an interesting conversationalist and had a number of odd ideas on things. We fitted him up with an outlandish costume for the part which we modeled from some of the illustrations from fantastic stories. A vividly colored shirt with a bright purple cape dropping from the

shoulders, green shorts, yellow leggings. He supplied an oddly designed pair of slippers himself and we topped it off with a wide metal studded belt.

**T**HE CONVENTION met in a hall in Manhattan and was quite a success. About three hundred people from California, Texas and other far away states had traveled all the way across the continent to attend.

The regular business of the convention had been disposed of and we introduced the star visitor, our "Man from the Future."

The dwarf played his part to perfection. He strode on to the dais with perfect ease and looked great. His normal sized head really looked quite gigantic in comparison with his stunted body and we had emphasized his brow with a metallic helmet. He had clipped a number of things to the trick belt, a couple of dials, a leather pouch, and a couple of tubes which I supposed were chrome flashlights he might have bought in the five-and-ten.

He started his little talk nicely. The audience was quite spell-bound, he really looked the part you know. And with that helmet, you couldn't see that he wasn't bald as a real man from the future ought to be.

Anyway he was getting along famously, following our script closely, telling how he had come back from the future in his time machine to investigate the Twentieth Century for the historians of his day.

Then one of those nuisances from the science-fiction club that meets in the Bronx recovered his breath and started to heckle. Just for explanation, I might say that our clubs are sort of rivals, friendly-like, but rivals. They had a movie they made



themselves and were going to project and they were afraid our Man from the Future would prove to be the more memorable attraction.

Anyway this chap over in the Bronx section near the back of the hall kept calling out annoying questions and trying to confuse our dwarf. I could see that the dwarf wasn't taking this very well for he was getting a bit mixed up and was looking quite angrily in the direction of his persecutor.

Finally the heckler called out something about why don't you go back to Coney Island where you came from? and that got the speaker rattled once too often.

The dwarf stopped, stared at the heckler from his raised dais, dramatically unhooked one of his flashlights and pointed it at the source of annoyance. It was nicely acted and I was tickled he had such presence of mind. The dwarf pressed the switch and an ordinary beam of white light, narrowed down to almost a pencil beam shone on the speaker.

You couldn't see it very well in the afternoon light and it would have been more effective if there had been a green or red filter in it, but it seemed to have done the trick.

The heckler shut up and our Man from the Future finished his little talk.

The rest of the convention went off without any trouble. The dwarf left shortly after he had finished and didn't want to stay to see the movies. After the film we all left the hall for a buffet supper downstairs in the building and we didn't have occasion to go back.

That's all I know about the affair. We had a good time, everybody thought that the Man from the Future had put on a good act and had been very clever in using that ray trick to shut up the heckler. That is everyone thought so but the police when the caretaker discovered the body after the week-end lying in the hall crusted with green and blue spots. The police are still looking for that dwarf and that trick flashlight.



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# RETURN FROM M-15

by S. D. Gottesman

(Author of "Dead Center," "Nova Midplane," etc.)



He had the machine that could bring the Earth untold prosperity, but how could he compel the Syndicate to give way without destroying the world?

## CHAPTER I

"FOR THIS DEVICE," declared the haggard young man, "and all rights, I want thirty per cent of the World Research Syndicate voting stock."

The big man grinned. "Your little

joke, Dr. Train. World Research Syndicate has little interest in independents—but from a person of your ability, perhaps we'll examine it. What is it you have there? Perhaps a payment of a few thousands can be arranged."

"Don't laugh just yet. Look over



these plans—you'll see what I mean."

The engineer took up the sheaf of cap with a smile and unrolled one of the sheets. His brow wrinkled, the smile became a frown. He opened other sheets and stared at them.

"Excuse me," he said, looking up. "I think I see what you are driving at, but I can't deliver an opinion on this sort of thing. I'm an expert in my own line and I know di-electrics as well as most, but this stuff is over my head. I shall endorse your work and refer it to the Board of Technology. And I think you'll scare hell out of them."

Train laughed freely. "I'll do my best, Hans. And have you any idea of what this device will do?"

Vogel looked frightened. "I almost hope I'm wrong," he said. "Does it——" he whispered in Train's ear.

"Right the first time. It does and it will. And if the Syndicate doesn't meet my demands, then I can set it up myself and go into business."

The other man looked strangely sober. "Young Dr. Train," he started, "I am strangely inclined to advise you like a father."

"Go ahead, Hans," replied Train cheerfully.

"Very well. I tell you, then, to moderate your request, or you will find yourself in the gravest of difficulties." He looked about the room apprehensively. "This is not a threat; it is merely advice. I am almost convinced that you should scrap your machine or technique, or whatever it is, and forget about it as completely as you can."

Train rose angrily. "Thank you. Vogel, you must be the truest and most faithful slave the Syndicate has; you and your advice can both go to the same place. I'm leaving the plans with you; they are not complete, of course. I hold all the

key details. Send them into your board and have them communicate with me. Good day."

ANN WAS primping herself before a mirror. "Barney," she warned coldly as she saw Train sneaking up behind her.

"I just wanted to straighten my tie," he said meekly.

"A likely story!"

"It isn't every day one calls on Jehovah," he said. "I think Mr. T. J. Hartly would be disgruntled if I appeared with a crooked tie to receive a check for a million dollars."

"For a check that big you should be willing to go in stark naked," she said reflectively.

"Possibly. Where shall we have dinner? I want to flash the check in a head-waitress' face. They've been sneering at me all my life and I think it's time I got even."

"You'll do no such thing!" she retorted indignantly. "The moment we get that check, we head for the city clerk and get married. The money may be in your name, but I'm not going to be short-changed."

"Come on," he said, taking her arm and starting for the door. "It is sort of wonderful, isn't it? I'm so damned nervous I might burst into tears."

Suddenly sober, she looked at him. "Yes."

"Husband and wife," he mused. "Free from care and poverty; we can just love each other and buy all the crazy, expensive machines we want. We can get acid stains on our hands whenever we feel like it, and have explosions three times a day. It's like a dream."

She kissed him abruptly. "On our way." They hopped into a taxi, and after a few moments of frenzied driving, pulled up at the entrance to the Syndicate Building.



Train paid the driver, gave him an enormous tip. On the elevator, Ann kicked him sharply in the shin.

"What was that for?" he inquired injuredly.

"For wasting our money, dear."

"Then this," he replied, kicking her back, "is for interfering in the distribution of our funds."

The door opened and they hobbled out of the car.

"Mr. Train and Miss Riley?" asked a polished young man, looking curiously at them. "Please come this way." He opened a hugely carved oak door and ushered them through. Then the door closed solidly behind them.

The room was huge and impressively bare. At the far end, beneath clouded windows, was a large desk. Impressively the man behind it rose.

"I am Mr. Hartly," he said.

"Riley and Train," replied Barnabas Train nervously. "We are pleased to meet you."

Hartly smiled acknowledgement and studied a sheaf of papers. "As the arrangement now stands, we have investigated your device—tagged Independent Fourteen—and are prepared to take over all rights and techniques in exchange for a stated payment. This payment will be an advance of one million dollars to be delivered in toto now, in return for the final details of Independent Fourteen which are in your possession, to be followed by a transfer of thirty per cent of the voting stock of Research Syndicate."

"Correct," said Train. "I'm prepared to deliver if you are."

Hartly—who was really a very small man, Ann noted with some surprise—smiled again. "As director of the Syndicate I have decided to request a slight moderation in your demands."

"To what?" snapped Train, his eyes hardening.

"It has been thought that an ample payment would be arranged on a basis of the million advance and—say—one tenth of one per cent of non-voting stock."

Train laughed shortly. "Don't joke with me. I know the spot you're in. I'm holding out for a strong minority for one reason only—I want to put in my vote when I have to and keep you financiers from taking young technicians from the schools and making them your slaves as you've always done. And if you don't give in—Independent Fourteen goes into operation under my direction, and at my discretion. And you know what that machine can do to your trust!"

Hartly tapped his teeth with a pencil. "As well as you, certainly." A moment of silence. "Then if we can reach no agreement you had better leave."

"Come on, honey," said Train, taking Ann's arm. "We have work to do." Turning their backs on the little financier, they walked to the huge door and pulled it open. Before them was a line of police. "Go back," said an officer quietly.

"What the hell is this?" demanded Train as they were hustled back to Hartly's desk, surrounded by an escort with drawn guns. The officer ignored him and addressed the man behind the desk. "We heard there was trouble in here, sir. Are these the ones?"

"Yes. The man has attempted blackmail, theft, sabotage, and assault. The woman is of no importance."

"He's lying!" exploded Train. "I'm Dr. Train and this snake's after stealing an invention he won't meet my terms on."



"You'd better search him," said Hartly quietly. "I believe he has on him documents stolen from our files. They will be marked as specifications for Independent Fourteen."

Suddenly Train stopped struggling. "You're wrong on that point," he said coldly. "All the missing details are in my head; you'll never get them from me."

"It doesn't really matter, Doctor," returned Hartly negligently. "My engineers can reconstruct them from what we have."

"I doubt that very much! The chances are one in a million of your ever stumbling on certain facts that I did. I warn you—Independent Fourteen's lost for good if you do not turn me loose."

"That may be," smiled Hartly. Suddenly he burst into laughter. "But surely you didn't think we were going to operate your device. It would cripple our economy if we worked it to one percent of its capacity. That machine of yours is impossible—now. We may use it for certain purposes which we shall decide, but your program of operation was a joke."

Train and Ann looked at each other. "I think, Barney," she said softly, "that sooner or later we'll kill this little man."

"Yes. We will because we'll have to. I'll be back, Ann—wait for me."

"Captain," broke in Hartly to the officer, "here is a warrant of transportation signed by the Commissioner. It authorizes you to remove the prisoner to a suitable institution for indefinite detention. I think that had best be M-15."

**T**RAIN HAD BEEN hustled into a police-car and rushed to the outskirts of the city. There his guard turned him over to another group in

grey uniforms. He looked for insignia but found none. A policeman said to him, before driving off, "These men don't talk and they don't expect prisoners to. Watch your step—goodbye."

Train's first question as to who his guards were was met with a hammer-like blow in the face. Silently they shoved him into an armored car, as grey and blank as their uniforms, and all he knew was that they were driving over rough roads with innumerable twists and turns. At last the car stopped and they dragged him out.

He almost cried out in surprise—they were at a rocket-port. It was small and well-hidden by surrounding trees and hills, but seemed complete. On the field was a rocket the like of which he had never seen. Without windows save for a tiny pilot's port, comparatively bare of markings, and heavily armored, it loomed there as a colossal enigma.

His guards took his arms and walked him to the ship. Silently a port opened, making a runway with the ground, and other men in grey descended. They took Train and the single sheet of paper that was his doom and dragged him into the ship.

"Where—," he asked abruptly, and a club descended on his head.

He opened his eyes with the feel of cold water on his forehead. An inverted face smiled at him. "Feeling better?" it asked.

Train sat up: "Yes, thanks. Now suppose you tell me where we are and what in hell's going to become of us." He stared about him at their quarters; they were in a little room of metal plates with no door apparent.

"I think we're on a prison ship," said his companion. "They were apparently delaying it for your arrival."



We should be taking off shortly."

"Yes—but where are we going?"

"Didn't you know?" asked the other with pity in his eyes. "This ship goes to M-15."

"I never heard of it or him. What is it?"

"Not many know it by its official number," said the other carefully and slowly, "but rumors of its existence are current almost everywhere. It is a planetoid in a tight orbit between Mercury and Vulcan—an artificial planetoid."

He smiled grimly: "For eighty years, it has been in operation as a private prison for those who offend against World Research. Employees of the Syndicate who attempt to hold out work they have developed with the company's equipment make up one part of the prison rolls. Attempted violence against high officers also accounts for many of the inmates." Suddenly his eyes flashed and he drew himself up. "And I am proud," he said, "to be one of those."

Train moistened his lips. "Did you," he asked hesitatingly, "try to kill—"

"No, not kill. I am a chemist, and chemistry means mathematical logic. If one can produce the effects of death without creating the state itself, the punishment is far less. I am only human, and so I dosed—a certain corporation official—with a compound which will leave him less than a mindless imbecile in a month."

"Then I certainly belong here with you. If anything, I'm the greater criminal. You only stole the brains of one man; I tried to cripple the Syndicate entire."

"A big job—a very big job! What did—"

His words were cut off by a shattering, mechanical roar that rattled

them about their little room like peas in a pod.

"Hold on!" shouted the man to Train above the noise, indicating the handgrips set in the floor. "We're going up!"

They flattened themselves, clutched the metal rods. Train was sick to his stomach with the sudden explosive hops of the ship as it jerked itself from the ground, but soon its gait steadied and the sputtering rocket settled down to a monotonous roar.

He rose and balanced himself on the swaying door of their cell. "Next stop," he said grimly, "M-15!"

## CHAPTER II

**L**AURENCE—Train's cell-mate on the prison ship—stirred uneasily and nudged the other.

"What is it?"

"Listen to that exhaust. Either something's gone wrong or we're going to land. How many days have we been going?"

"They've fed us twenty-three times."

"Probably two weeks in space. That should be about it. Do you feel the gravity?"

Train rolled over. "It's faint, but it's there. We must have landed already—the motion we feel is the ship shifting around on the landing field."

As though in confirmation of his words, the door to their cell that had been closed for two long weeks snapped open to admit two of their captors. The grey-clad men gestured silently and the prisoners got to their feet. Neither dared to speak; Train remembered the blow that had been his last answer, and so did Lawrence. They walked slowly ahead of their guards to the exit-port of the ship,



not daring to guess what they might see.

Train walked first through the door and gasped. He was under a mighty dome of ferro-glass construction, beyond which stars glittered coldly. They must have landed on the night-side of the artificial asteroid, for he could see the blazing corona of the sun eclipsed by the sphere on which he was standing. Fantastic prominences leaped out in the shapes of animals or mighty trees, changing and melting into one another with incredible slowness. It was hard to believe that each one of them must have been huge enough to swallow a thousand Jupiters at once, without a flicker.

A guard prodded him savagely in the back. He began walking, trying his muscles against the strange, heady lack of gravity, mincing along at a sedate pace. They were headed for a blocky concrete building.

The doors opened silently before them, and they marched down a short corridor into an office of conventionally Terrestrial pattern.

For the first time Train heard one of the guards speak. "Last two, sir," he said to the uniformed man behind a desk.

"You may leave, officers," said the man gently. They saluted and disappeared from the room. The man rose and, in a curiously soft voice, said: "Please be seated."

Train and Lawrence folded into comfortable chairs, eyed their captor uncertainly. Lawrence was the first to speak.

"Is there anything I can do for you?" he asked with flat incongruity.

"Yes," said the man. "May I have your names?"

"Train and Lawrence," said the chemist. The man wrote in a book sunk flush with the desk.

"Thank you. And your reasons for commitment to M-15?"

"In my case, attempted murder," replied Lawrence. "In Train's, blackmail and theft. At least, so we are given to understand."

"Of course," said the man behind the desk, writing in the information. "It is my duty as administrator of this asteroid to inform you as well as I may of your functions here and what treatment you may expect."

He coughed and sat up straighter. "You may well wonder," he began pretentiously, "why you have been sent to this bleak spot to expiate your sin against society."

"Rebellion against the Syndicate, you mean," snapped Train harshly.

"Be that as it may," continued their informant with a shrug, "this is an officially constituted place of detention under charter and supervision by the Terrestrial League. Certain cases are sent to us for corrective measures associated formerly with World Research Incorporated. Therefore, it is only proper that they should be assigned to experimental work tending to advance the progress of humanity and raise its cultural level.

"Your work will be a sort of manufacturing process of an extremely delicate nature. However, mechanical controls and checks will make blunders and errors impossible after a short period of instruction. You two men have been technicians of a high order of skill; let us hope that you will redeem yourselves by application to your assigned task."

He sat back with a smile. "Now, unless there are any questions—"

"There damn well are," snapped Lawrence. "In the first place, is there any communication with the outside world?"

"None whatsoever. Evil influences



might convince you that all here is not for the best, and persuade you to foolish acts of violence. We leave nothing to chance."

Train had had enough; he was going to get this soft-spoken fiend if it were his last living act. With a snarl in his throat he leaped at the desk, only to bring up smashing his face against some invisible barrier. Amazed, he put his hands over the frozen, quite transparent surface between his tormenter and him.

"Superglass," said the man quietly, smiling as on a child. "As I said, we leave *nothing* to chance."

"**T**HIS IS your cell," said the guard—one they had not seen before. He waved them into a spotless chamber, small and square, featuring two comfortable bunks and elaborate sanitary facilities.

Train sat on one of the bunks, dazed. "I can't understand it," he burst out suddenly and violently. "This whole business is rotten with contradictions."

"What do you mean?" asked Lawrence absently, switching the faucet on and off.

"It's this sort of thing. They stuck us on this asteroid to die, we know. And yet, look at this room! Perfect for comfort and health. Consider our reception: a very skillful welcome designed to soothe one's ruffled spirit and put him in a cooperative frame of mind. Of course, it didn't happen to work with us, because we have very special rages against the system and all it stands for."

"It's very simple," said Lawrence thoughtfully. "They don't want us on Earth and they do want us here very badly."

"Simple?" Train snorted. "I could have been shot down like a dog in Hartly's office two weeks ago, and yet

he packed me off here at a terrible expense in salaries, fuel, and wear of the ship. I don't think it was fear of punishment of any kind that stopped him from destroying me then and there. They need me out on this chunk of rock. And I think it has something to do with where the place is, too."

"How so?"

"Like this. It stands to reason that if you put an asteroid in a tight orbit as near as this to the sun, you need a lot of power—expensive power—to keep her there. It would be a lot easier and cheaper to put the orbit out somewhere between Jupiter and Neptune, and would be fully as accessible, or inaccessible, all depending on how you look at it. Ships wouldn't have to have sun-armor, which costs plenty, and they wouldn't run the risk of getting caught in an electric twister or prominence."

"So this place," said Lawrence slowly, "is more than a prison."

"Obviously. Remember the ancient motto: 'If it pays, they'll do it.'"

"And if it doesn't, they won't. What was it that smiling gentleman said about congenial occupations commensurable with our training?"

"That's it! They manufacture something here that needs trained men and sunlight in huge quantities."

"Then why not hire workers? Why run the risk of having convicts responsible for the production of a valuable article or substance? It must be valuable, by the way. Just think of what it cost to get us here, to say nothing of the expense of building and maintaining this setup."

Train's face went grim. "I can guess. It must mean that there's a fair chance that the substance is so deadly that the men who manufacture it, even with all suitable and



possible guards and shields, must be poisoned by it so that they die at their work after a time."

"Yes," said Lawrence, "you must be right." There was a long silence, then a guard banged his stick on their door.

"You're going to work," he called in on them. The door was unlocked; the two walked out as martyrs might.

"This way," said the guard.

**H**E SHOWED THEM into a narrow tiled room. "Begin by sealing those bottles. You'll find torches and material in your cabinets." He walked out, closing the door behind him.

Train stared at the row of open flasks that stood on a shelf like so many deadly snakes. "What are they, Lawrence?" he asked hoarsely.

"I had an idea all along—" whispered the chemist. He took one of the flasks carefully by the neck and spilt some of its contents on a composition-topped table. "Looks like ordinary table salt, doesn't it?"

"Yes. But it has a smell like nothing on earth I know."

Lawrence, with the attitude of a scientist who knows and demands that everything should be in its place, opened a standard supply-cabinet and brought out, without looking, an ochre filter and a connected burner. He played the flames on the crystals and squinted through the glass carefully, turning it at sharp and precise angles. Finally he replaced the filter absently and incinerated the little heap of stuff on the table.

"One of the mysteries of the chemical world is solved," he said. "That stuff is thalenium chloride."

"Never heard of it."

"You're fortunate. It's the filthiest narcotic that ever cursed a race. Fortunately, only the wealthiest can afford to take it. Seeing the set-up required to manufacture it, that's understandable."

"Thalenium's supposed to be a solar element—unstable—made up in the sun's core. They named it after the Muse of Comedy, for some reason or other. I never came across an authentic case of thalenium poisoning, but it's supposed to cause hallucinations viler than anything imaginable to the normal mind. External manifestations are great spasms of laughter—hence, comedy and the comic muse."

Train stared at the innocent-appearing crystals. "And we have to handle it?"

"No danger, yet, I suppose, if we are careful."

Lawrence picked up a flask full of the narcotic with tongs. "Like this," he said, skillfully playing a stream of flame across its tapering spout. He set it down and quickly slipped a cap over the softened glass. "Then," he added, "you appear to spray it with this stuff." He squirted a film of heavy liquid on the cap. It set sharply, and letters and figures came out on it.

"Authentic thalenium chloride, c. p., 500 mm.," he read. "Clever devil, World Research!"

They set to work, moving like machines, sealing the flasks in three sharp operations.

"There's no danger yet," observed Lawrence. "I don't know, and can't imagine, what the process of its actual manufacture may be, but we'll find that out later. If the stuff is prepared direct as the chloride, it might be fairly harmless, but if free metallic thalenium is used then there



must be hell to pay among the workers."

"Then there's no point, as yet, in going on strike?"

"Certainly not. Everything's gravy so far. And of course, it's going to be gravy as long as we do our work faithfully, obediently, and not too intelligently. Thus, for example, it pays to make minor mistakes like this one." He took a sealed bottle firmly by the neck and snapped it against the edge of the table. It shattered and spilled over the floor.

"I get the idea. We case the joint for as long as we can, staying away from the dangerous operations. Then we escape?" He poured an acid over the salt on the floor; it bubbled and gave off thin wisps of vapor.

Lawrence scattered a neutralizing base over the acid. It became a white froth that he flushed down a floor-gutter. "I see," he remarked, returning to his work, "that we've been thinking along somewhat similar lines."

"I have a machine," said Train irrelevantly. "I developed it all by myself—no, I'm forgetting my girlfriend, a very competent head for details—and if I get back to Earth and have two weeks to myself, along with reasonable equipment, I guarantee that I'll wipe World Research and all that's rotten in it off the face of the earth and out of the cosmos, too."

"Sounds remarkable. What does it do?"

Train told him.

The chemist whistled. "Quite out of my field," he said. "It takes a physicist to dope out those things that really count."

"Independent Fourteen, they call it," said Train with a tight-drawn smile. "And I swear by every god in the firmament that nothing—nothing—is going to keep me from

getting back to Earth, setting up Independent Fourteen, and blowing World Research to hell!"

### CHAPTER III

**T**RAIN was lying half-awake on his cot when the door slammed shut. "Hiya, Lawrence."

The chemist bent over him. "Get up, Barney. It's happened."

Train sat up abruptly. "How do you know?" he snapped.

"I was just seeing the Oily Bird." That was the name they had given the infuriating man who greeted them on their arrival. "He says we've made good in the packaging department and we're going to be promoted. He still doesn't know that we are wise as to what is going on."

"Promoted, eh? What's that mean?"

"He said we were going into the production end of the concern. That we'd have to handle the stuff without tongs. Be exposed to sunlight. And, at this distance, that's surely fatal in a short time."

"I didn't think it would come this quickly," said Train. "Then we'll have to dope something out—fast."

"Fast is the word. How about slugging a guard?"

"Too crude. Much too crude. They must have an elaborate system of pass-words and countersigns; otherwise it would have been done successfully long ago. And Lord knows how many times it's failed!"

"Right," said the chemist. "We can't slug a guard. But maybe we can bribe one?"

"I doubt it. We know it hasn't succeeded. I suppose they make big money as such things go."

"Can we put psychological screws on one? Know any little tricks like



suggesting hatred against the system he's working for?"

Train wrinkled his brow. "Yes, but they are good only after a long period of constant suggestion. We have to move at once. Lawrence, can you play sick?"

"As well as you. Why?"

"And do you remember the shape of the eyebrows on the guard we have this week?"

"Have you gone bats?" demanded the chemist, staring at Train angrily. "This is no time to be playing jokes."

The scientist raised his hand. "This isn't a joke, or a game, either. Those eyebrows may mean our salvation."

Lawrence picked up a pencil and paper and sketched out what he remembered of their guard's face. "There," he said thrusting it under Train's nose.

Train studied the drawing. "I think this is accurate," he mused. "If it is, we may be back on Earth in two weeks."

**T**HE GUARD KNOCKED on the door, and there was no answer. Suspiciously he pushed it open and entered, half-expecting to be attacked. But he found one of the prisoners in bed with a sallow skin, breathing in shallow gulps.

"Lawrence is sick, I think," said Train.

"Yeah? Too bad. I'll call the medico."

"No," gasped the patient, "not yet."

The guard turned to go. "I have to call him when anyone is sick. It might start an epidemic, otherwise."

"Can you wait just a minute?" asked Train. "I know how to handle him when he gets one of his attacks. It isn't anything contagious. Just

mild conjunctivitis of the exegetical peritoneum."

"That a fact?" asked the guard. "How do you handle him?"

"Easy enough," said Train. "May I borrow your flash-light?"

"Sure!" The guard handed over a slim pencil-torch.

"Thank you." The scientist balanced the light on the broad back of a chair. "Won't you sit down?" he asked the guard. "This will take a few minutes."

"Sure." Their warder watched with interest as Train dimmed the lights of the cell and switched on the flashlight so that it cast a tiny spot of radiance on a gleaming water faucet. The guard stared at it, fascinated.

Train's voice sank to a whispering drone. "Concentrate on the light. Block out every other thing but the light."

The guard shifted uneasily. This was a strange way to treat a sick man, and the light was shining right in his eyes. Perhaps he had better call the medico after all. He was half decided to do so, but he felt tired and the chair was comfortable. What was it Train was saying?

"By the time I have counted to twenty, you will be asleep. One . . ." The guard's eyes grew heavy. "Concentrate . . . block out everything but the light . . . everything but the light . . . seven . . ."

The spot of light floated before the guard's face, distorting into strange shapes that shifted. He just barely heard Train drone "twelve" before he began to breathe deeply and hoarsely.

Train switched on the lights and slipped the flashlight into his pocket. "Perfect specimen, Lawrence," he exulted. "You can always tell by the eyebrows."

"Fascinating," returned the erst-



while victim to conjunctivitis of the exegetical peritoneum as he climbed out of bed. "What now?"

Train rolled back the guard's eyelids with a practiced thumb. "Ask him anything," he said. "He'll tell you whatever we want to know."

Lawrence cleared his throat, bent over the sleeping man. "When are you leaving for Earth?"

"This afternoon. One hour from now."

"Do the others know you?"

"They never saw me, but they know my name."

"What are the passwords on the way to the ship?"

"Front gate, rabies. Second gate, tuberculosis. Field guard, leprosy. Ship port, cancer."

"Someone must have had a grim sense of humor," whispered Lawrence to Train.

"What are your duties on the ship?"

"I have no duties."

The chemist snapped: "One of us must take his place."

"Yes. Which one of us? No, we won't have to decide. I'm going. Aside from such details as the fact that his uniform will fit me, but would look suspiciously baggy on you, I have a chance to do something about this whole rotten system when I get back. You would only be able to commit more murders, or near-murders."

The chemist's lips whitened. "You're right," he whispered. "When you have the chance, promise me that you'll wipe out this asteroid and the filthy stuff they manufacture here. I don't think I'll be around by that time; exposure to the sun might get me sooner than we think."

"I know," said Train shortly, "and I promise." He gripped the other's hand and shoulder for the moment,

then turned to the unconscious guard and began a machine-gun fire of questions that were to stock his brain with every secret datum held inviolate by the militia of the man-made planetoid.

ANN RILEY was frying breakfast fast bacon and eggs; she did not hear the door of her flat open softly and close. Behind her a voice suddenly spoke. "Cut me in on some of that."

She turned and gasped: "Barney, you sonova gun!" she yelled and flew into his arms.

"It was really nothing," he explained over the coffee. "They just hadn't figured on the hypnosis angle, and I took care not to drop any bricks on the voyage. The inefficiency of that system is appalling. If I were managing it, I could step up production of their rotten stuff three hundred per cent and see that no prisoner even thought of escaping."

"Yeah," she said skeptically, "I know. But what are you going to do now that you're back?"

"I'm safe for a month. That's how long it takes for a ship to get there and back, and they haven't any other means of communication. The nearness to the sun makes radio or beam messages impossible. So, first, I'm going swimming."

"No, you aren't," she said coldly, a gleam in her eye. "I've been re-drafting Independent Fourteen, and all the details are there down on paper again—except for the ones you have in your head. We're going to build that machine and build it fast and powerful. Then we'll throw it in the teeth of T. J. Hartly and World Research, Incorporated. And we're going to fling it so hard there won't be a sound tooth left in their mouths."



"Yes, my pet. I must confess I had some such thought in my head when I decided to come back to Earth."

"We can rig up enough of a lab," she went on, "right here in my flat. There's no more experimentation to do; we just need the bare essentials with a slight margin for error."

"Splendid," he nodded, reaching for another slice of toast. "We'll need about a hundred yards of silver wire, some standard castings, and a few tubes. You'd better go out and get them now—shop around; we can't afford to get the most expensive. Where have you got the plans?"

They rose from the table and Ann drew a huge scroll of paper from the closet. "Here they are. Full scale, this time."

Train scanned them. "Hey! This distributor wasn't on the designs I gave you."

"Oh, I just filled it in," she demurred.

The scientist scowled. "Hereafter," he proclaimed, "all filling in will be done by Doctor Train. Now gwan out and buy the stuff while I work out the missing circuits." He seated himself at a desk, brooding over the plans.

He looked up when a firm tap came on his shoulder.

"Well?" he asked without turning his head.

"Excuse me, young man, but a point of morality has just come up. Where do you expect to live while you're building Independent Fourteen?"

"Right here," he answered calmly. "First, I can't afford to live anywhere else—even though I drew a guard's salary, and that isn't too small. But there's that danger to consider. You wouldn't want your

collaborator to be snatched up and deported again, would you?"

"Fundamentally," she began in a determined voice, "I'm a conventional person. And I do not like neighbors talking about me as though I were a thing loathsome and accursed in the eyes of gods and men."

"What have neighbors to do with it?"

"Don't you think they would consider it a bit peculiar were a man suddenly to come to my flat and began to live with me as though it were the most natural thing in the world?"

"Isn't it?" he replied. "In the eyes of Science nothing is unclean or to be shunned."

"Dr. Train!" she flared, "you are going to marry me whether you like it or not. At once!"

He stared at her. "I never really thought of it like that," he began . . . but Ann was already speaking into the mouthpiece of the phone.

"Central Services, please."

She returned to him. "There—that was easy, wasn't it? He'll be here in a moment; he lives a few houses down."

There was a knock on the door. "Central Service is Super Service," quoted Ann. "That's him now."

She rose to admit a sickly individual who greeted her in a brisk, flabby voice. "Miss Riley?"

"Yes. And that object is Doctor Train, my spouse-to-be."

"Thank you," said the agent, opening a book. "Please sign in duplicate." Ann scribbled her name and passed the book to Train, who also signed.

"Two dollars for ceremony and registration," said the anemic Cupid. Train handed over the money and limply accepted the certificate in return.



"Thank you," said the agent. "I now pronounce you man and wife." He walked out through the door, closing it gently behind him.

"Well," said Ann, after a long pause.

"Well, what?"

"Aren't you going to kiss the bride?"

"Oh." He did so until she pounded his back for air. "I must be a romanticist," he complained, "but I always wanted an old-fashioned wedding before a city clerk."

"Times have changed," she philosophised. "The tempo of life is accelerated; things move at a fast and furious pace in these mad days. The old conventions remain, but one complies with them as swiftly and effortlessly as possible. It helps to retain the illusion of gentility."

"Then," he said, "since the illusion is saved, let's get to work. One hundred yards of silver wire—no, make it seventy; we can always buy more."

#### CHAPTER IV

"**W**HAT'S that thing?" asked Ann, peering curiously at an odd-looking setup Train was working on.

"A little something. I plan to scare hell out of Hartly with it. A frequency inductor—I can get the wavelength of his inter-office system and bellow in his ear."

"Very cute," she said thoughtfully. "What's the second tube for?"

"Steps up the tertiary vibrations. I could have used a seven-phase transformer with better effect, but a tube's cheaper and we happened to have one left over."

He twisted a final screw contact into place. "Finished," he announced, "shall we call up T. J.?"

The curiosity was gone. There was

only sudden anguish in her eyes as she clung to him. "Barney!" She buried her face against his shoulder. "What shall we do if anything goes wrong?"

For a brief second her fears leaped through him as he comforted her in the only way he knew. Then cold reason reached in. His voice was steady as he answered: "Nothing will. Independent Fourteen's checked and triple-checked. We've tested it and it clicks every time. What are you worrying about?"

"Hartly's a smart man. He has to be to stay on top of World Research. He must have things up his sleeve that no one has ever dreamed about. Wasn't he a scientist himself before he rose from the ranks to the executive department? It's men like that you have to watch out for. Never trust a reformed technician."

Train smiled happily. "There's nothing to be afraid of. It's the nature of Independent Fourteen that has him licked before he can start. With this priceless gimmick we have a machine that will give us unlimited personal power and protection. I'm going to play our cards for everything they're worth."

"Barney, isn't there a chance that we might compromise?" She waved aside the protests that sprang to his lips. "I know," she said. "The Syndicate's the greediest octopus that ever got its suckers around the life-blood of a world. It's utterly contemptible—and yet, it's too powerful for its own good—and maybe for ours. Couldn't we compromise and lull their suspicions?"

"Not one bloody chance in a billion!" Train snapped harshly. "Independent Fourteen's our only trump card, but it's the winner in this game as soon as we see fit to play it."

"I guess you're right, Barney,"



said Ann wearily. "Call up Mr. Hartly on that gimmick while I warm up Fourteen." She turned to a corner of the room cleared except for a bulky piece of machinery, protrusive with tubes and coils, built around heavy castings bolted together, mounted on wheels. Ann fingered a switchboard carefully, and tubes began to glow with fiery electrical life while sparks snapped from point to point.

"Mr. Hartly, please," said Train quietly into a grid of his instrument.

"Hartly speaking," boomed from a loudspeaker connected with the tiny device. "Who is this?"

"Dr. Train. Do you remember?"

There was a sudden click. "You can't hang up, Hartly. If you look, you'll find that your phone's blown out. I'm using irregular channels."

A long pause, then Hartly's voice came through again, this time tinged with wonder. "How did you get back from M-15, Train, and when did you do it?"

"You paid me to come back, Hartly. I drew the full salary of a guard while returning to Earth on his regular vacation. I've been here some twenty days."

"Extraordinary," breathed the great man. "And I suppose you've been setting up that silly machine of yours?"

"Not so silly," replied Train ominously. "It works like Merlin's wand—that neat and efficient."

"Then it's no use my sending men around to Miss Riley's flat—I assume that is where you are—to arrest you as an escaped convict."

"No use whatsoever. I can make them feel very foolish, if I so desire. Or I can simply wipe them out without any fuss at all. I'm a practical man, Hartly. Most scientists are—you were one once, yourself, I understand."

"Bacteriologist. Occupied in saving lives. It was wonderful for awhile, but I found eventually that there was no future in it."

"Despicable attitude, Hartly. It shows up throughout your career. It was your career, by the by, that I want to discuss with you, anyway."

"What about my career?"

"Just two words, Hartly. It's over."

**H**ARTLY'S CHUCKLE was silky smooth. "How so, Doctor? I was under the impression that it had barely begun."

"I'm warning you, Hartly, not to take this as a joke. I haven't forgotten what it was you wanted to do to me on M-15, and what I was supposed to be doing in the process. I'd have more scruples about killing a scorpion than you, Hartly."

"No doubt about that," came the answer. "So would many misguided persons. But the interesting thing about it is that they have always ended up among insuperable difficulties. You may make me a concrete proposition, Doctor."

"I may and I will! The proposition is this: your unqualified resignation from the directorship and organization of World Research Syndicate, and an assignment to me of unlimited reorganization powers for the period of one year."

Hartly's voice was mocking in tone. "Yes? World Research is a rather large enterprise. Do you think one year would be enough?"

"Ample. Your answer?"

A long pause, then: "My answer is unqualified refusal."

"Based on what? Make no mistake: I shan't hesitate to blot you out any longer than you would hesitate to do the same to me—unless you capitulate. And the difference,



T. J., is that I can do it and you cannot."

"Admitted," came back Hartly's voice cheerfully. "But surely, Doctor, you didn't think that I have not been preparing—in fact, been prepared—for just such an occasion as this ever since I came into power?"

"Explain," snapped the scientist. "And talk fast and straight."

Hartly's voice was now unperturbed. "When a question of conflict arises, it's either a matter of personal gain or benefit to the world. I've been faced by determined men before, Train. Those who were after personal advancement could be compromised with and later eliminated by quick thinking and quicker action.

"However, altruists presented a different problem. Most of them could not be bribed. Some of them were powerful enough, by reason of their ability or backing, or both, to issue a flat defiance to me. Those I threatened with the thing they loved most—humanity."

"Come to the point, Hartly. I'm not too patient a man in some ways."

"I was a bacteriologist once," went on Hartly. "And, in the course of my research, I developed a nasty variety of bread-mould. It attacks anything organic and spreads like wildfire. I know of nothing to check it, nor does anyone else. It thrives at any temperature and flourishes off corrosive agents."

"So?"

"So, Doctor Train, make one false move, as they say in melodrama, and I release an active culture of that mould; you will then see your flesh crumble away. I realize that alone wouldn't stop you, but the thought of what will then happen to the teeming millions of Earth will."

Another silence, then: "I decided long ago, Train, that no one would

wipe me out. True, someone might come along with bigger and better power, even as you have done, but, as you can see, if there's any blotting out to be done, I shall do it myself.

"It will mean the end of World Research and of me. It will also mean the end of all animal life on this planet. If you want a Pyrrhic victory, Train, you may have it."

"It's horrible!" cried Ann, her eyes wide with the shock of it. "Can he do it, Barney?"

"Miss Riley," came through the voice. "Perhaps you remember the occasion of our first meeting. Do you think me the type of man to try a bluff?"

Train turned to the transmitter of his tiny outfit. "I know you're not bluffing, Hartly. I know also that you'll try every means of persuasion you know first, because you don't particularly want to be wiped out, even by your own hands, yet. But it won't work; you'll try this last resort of yours because the ethics of business, which doesn't blink at the murder of an individual, wouldn't blink at the murder of a planet.

"We're going to make a call on you very soon, Hartly. My wife, myself, and Independent Fourteen."

## CHAPTER V

**T**RAIN PAUSED for a moment in thought. "Ann," he said, "do you think Hogan would want to help us?"

"That's a fine favor to ask of any neighbor. Let's see."

They knocked on the door of an adjoining apartment, and the staccato rattle of a typewriter suddenly cut short. The door swung open, and a little man presented himself. "Afternoon, Trains," he said. "What can I do for you?"



"Hogan," began Ann winsomely, "we think that you ought to take the afternoon off. Your work's telling on you."

"Not so I've noticed it. What do you want me to do? More shopping for copper tubing? I'm a busy man, Mrs. Train."

"We know that, Hogan," broke in Barney. "But can you spare us a few hours? We need help badly. You'll have to push some heavy machinery and maybe do a bit of scrap-  
ping. . ."

"A fight! Why didn't you say so in the first place? Wait; I'll get me gun." He vanished, and they heard the typewriter rattle off a few more steaming paragraphs.

The little man appeared again, hefting a ponderous automatic. "Who do we have to pop off?" he asked amiably.

Ann shivered. "Bloodthirsty, isn't he?"

"They bred us that way in South America. Is it a riot, or what?"

"No, none of them. We're going to blow up World Research."

"Splendid! I'd often thought of how elegant it would be to do that, if only some way could be figured out. Where's the machinery ye spoke of? I presume that is what you toss the bombs with."

"In our apartment. Only it isn't bombs; it makes the most powerful explosive look like a slingshot in comparison." They walked back to Train's flat and Ann pointed out Independent Fourteen.

"That's the junk," she said simply.

"It's a powerful-looking bit of machinery. But what does it do?"

Ann told him briefly.

"No!" he cried. "If it were as big as the Research Building it couldn't do that!"

"Calling us liars, mister?"

"Not a bit of it. All right. It does what you say it will—I hope. What's the campaign?"

"We march on the Syndicate Building, pushing Independent Fourteen before us. It's got wheels, you notice. The thing is nicely adjusted—it'll function on any violent shock as well as the hand controls; they know that, so they won't make any attempt to blow it up. In fact they know all about it, but I don't think they quite realize just how good it is. Otherwise they'd talk differently.

"I'd better show you how to handle it. All you have to know about is this switchboard. The button here indicates radiation. The power will spread in all directions except in that of the operator and directly behind him. This other button is direction. That aims the influence of the machine in a fairly tight beam. Its action is invisible, but it's controlled by this pointer. And the results are soon apparent."

"And what could be the meaning of these cryptic signs?" asked Hogan, indicating a long vertical list of symbols running parallel to the slot of an indicator needle.

"They are the chemical names of the elements."

"I seem to remember," remarked Hogan, knitting his brows.

"Got everything straight? Radiant, director, pointer, and elements?"

"Yes. We can go in my car, I suppose."

They eased the ponderous machine safely down the flight of stairs, then into Hogan's car. Suddenly there boomed from Train's frequency inductor the voice of Hartly. "Train!" it said.

"Listening," the scientist snapped back.

"This is your last warning. I have a man across the street from you.



He says that you've loaded Independent Fourteen into a car. You seem to think I intend to back down on my promise to release the fungus."

"Not at all," replied Barney cheerfully, "not at all. On the contrary, I am convinced that you'll not hesitate to pour the stuff out of your window as soon as we come in sight. In fact, I'm counting on it, Hartly. Don't disappoint me, please."

"Then remember, Train, nothing . . . *nothing* . . . can stop the fungus. As you say, one false move nearer my building, and I release the culture."

"The false move is made, Hartly," said Train, with steel in his voice. "In case your man hasn't told you, the car has started. We are on our way."

He snapped off the transmitter.

"What was that all about?" asked Hogan, his eyes on the road.

"Just Hartly. He thinks he has a final stymie to work on me. Plans to release a kind of mould that eats away all organic matter. Fire cannot destroy or injure it, nor can chemicals. Once he releases it, it'll spread through the world, attacking all live wood, grass, and animal life."

"Yeah? What are you going to do about it?"

"Can't you guess? Hartly still doesn't realize that any power of his is just a joke so long as Independent Fourteen is in my hands. Pull up!"

**T**HE CAR SKIDDED to a halt before the building that housed World Research. "Take it out tenderly, husband mine," said Ann. "It means a lot to me."

There was a rattling from the pocket wherein Train had thrust his frequency inductor. He took it out, held it to his ear.

Hartly's voice was dry by now.

"The bluff's never been pushed this far by any man, Train. This is your last chance. I'm looking down at you, and I have the fungus in my hand. Train, I'm ready to drop this bottle."

"Are you, now?" The scientist's voice bespoke amusement. "And what am I supposed to do about it?"

"Abandon your machine and walk into the building. I'll see that you are taken care of rightly. You'll not regret it if you choose to compromise; you will if you do not."

Train laughed. "For once, Hartly, I'm holding every ace in the deck. Drop your little toy and see how useless it is to you."

There was a long, tense pause. Hogan and Ann watched, but could see nothing. Train swiftly manipulated the little instruments on the control board. There was a little tinkle in the street near them.

"There, Barney, there!" Ann screamed, pointing a trembling finger at a scarcely visible splotch of green. Train swung the pointer of the machine on it even as it exploded upward into a bomb of poisonous vegetation that rustled foully as it spread serpentine arms outward and up.

Train slammed down the button that flung the machine into action, swept the pointer right and left as the tubes sputtered angrily.

"Glory!" muttered Hogan. The fungus had suddenly been arrested and now stood etched in silvery metal.

"Free metallic magnesium," said Train. "It works on a large scale and with one hundred per cent efficiency."

"Elements transmuted at will," breathed Ann. "And nothing went wrong!"

"And the machine will do—that



—to anything?" demanded Hogan. "It has the Midas touch."

"That it has," agreed the scientist, swinging the needle and shifting the slide. "And, unless I'm mistaken, those men mean us harm."

He swung the pointer against a squad of uniformed militia that were running from the huge doors of the building. The button went down, and the police went transparent, then gaseous. They vanished in puffs of vapor that sought the nearest solid.

"Fluorine," said Train quietly. "Those poor devils are just so much salt on the street and portico."

"Let's go in," said Ann. They walked into the lobby, treading carefully around the white crusts on the pavement.

"Easy, Hogan," warned Train as they pushed Independent Fourteen into an elevator under the eyes of the horrified attendant. "Take us to the Hartly floor," he snapped at the latter, "and no harm will come to you. Otherwise . . ." He drew a sinister finger across his throat.

The doors of the elevator rolled open and they carefully pushed the machine before them. "Come out, Hartly," called Ann at the bronze doors to the inner office.

"Come in and get me," sounded from the frequency inductor in her hand. Resolutely they swung open the doors and marched in. Hartly was alone behind the desk. Quietly he lifted his hands, displayed two heavy pistols.

"I haven't been too busy managing my affairs to learn how to use these," he remarked. "Stand away from that machine."

Train tensed himself to leap, flinging Fourteen into operation, but Ann touched his arm and he relaxed, stepped aside with her and Hogan.

Hartly strode over and glanced at

the machine. He set the slide absentmindedly. "How does it work?" he asked.

"Red end of the pointer directs the beam. Slide determines the element required. Button on the left starts the operation."

"The red end?" asked Hartly, smiling. "You would say that. I'll try the black end first." He aimed the black end at the little group of three, thus bringing the red end squarely on himself.

"This button—" he began, pressing a thumb on it. But his words were cut short. A wild glare suffused his face as he brought up one of the pistols, but it fell from his hand, exploding as it hit the floor. He tried to speak, but a choking gasp was all his yellowing tongue could utter.

"He didn't trust ye," said Hogan sadly. "He thought ye meant him evil when ye told him the simple truth about the machine's operation. And that's why Mr. Hartly is now a statue of the purest yellow gold. The beast must weigh a ton at least."

"Hartly's never trusted anyone," said Train. "I knew that he'd never take my word, so took a chance for all of us. Now he makes a very interesting statue."

"It's horrible," said Ann. "We'll have them take it away."

"No," replied Train. "It must stay here. There's a new life beginning now—at last the youth will be free to work at what they want and the era of Syndicate regimentation is over."

"Let that statue remain there—as a picture of the old order and as a warning to the new."





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# PLANET LEAVE

by Clifton B. Kruse

(Author of "Incredible Visitor," "The Battle of Chang-Da," etc.)



The Frogman said he could show Nels Sundgren a good time on the planet of Ujikee, but he should have added smelly too!

**"YOU EARTHMAN, YES?"** Sundgren looked up from the dismantled section of a parsector upon which he had been working. His blue eyes widened with surprise. Before him stood a seven foot tall

brogite, one of the huge-headed natives of Planet 14, Aldebaran. Two jet brilliant eyes stared unblinkingly at the blond Earthman, Nels Sundgren. The monster's jaws moved, showing a triple row of canine-like teeth.



"I Xoma," the brogite uttered with an incongruous softness of voice. "Oxygen engineer. Have very much traveled and speak no doubt the very beautiful English. I see Earthman, yes?"

"Right," Nels Sundgren nodded slowly. At the present moment these two stood at the far end of the great rocketeer's engine repair room and save for the three or four small black-bodied, six handed little zannicans who were intent upon putting a repaired gravity-simulator together they were, for the time being, alone. "Glad to know you, Xoma. But you gave me a start. Fact is, I hadn't heard a word of English since we left Planet Ismusan."

"Also right," Xoma, nodding his gargantuan green head solemnly, looked almost like a giant frog. He wore the woven bronze-mesh uniform of a commercial rocketeer service. "Are four hundred ten creatures, passengers and crew, now on board and which represent seventy-two planets. You are only one from System of Sol which is renowned for humans. I like know you better, Sundgren your name, yes?"

Impulsively the Earthman grinned, stuck out a grease-stained hand and gripped the seven-fingered appendage of the huge brogite. "All right, buddy, since we're shipmates and you speak English. Glory, it's something to hear a man's own language way out here."

"Very far from Earth, indeed," Xoma acknowledged. "This system is cluster Messier 13 in Hercules, you understand? We land on seventeen planets before return trip back to Ismusan. You like Ismusan, no?"

"Like it? Thunder no!" Sundgren laughed bitterly. "The darkest, dirtiest, vermin-infested planet in the universe! I never did like an insect

planet and these blamed Ismusanians—spider-men is what I call 'em."

"Very much of truth," Xoma sucked in his breath noisily, indicating pleased agreement. "On next voyage think to sign up for long journey clear away from Hercules system. I very good oxygen engineer. Can get plenty contract."

"Sure, I know," Sundgren nodded. "Never saw one of you brogites who wasn't an expert at something. But I'm afraid I'm just a fool mechanic, Xoma. We've been shooting through Messier 13 now for fourteen work shifts and I haven't done a thing but repair one burned out parsector after another. And no one to talk to—"

"Very exact," Xoma spoke up. "So why I approach you. Would Earthman care for what you call very nice little hell-bender at next planet stop? It is very exotic world called Uji-kee."

"Uji-kee?" Sundgren scratched his head speculatively. The sway of the speeding rocketeer's gyrotors rolled the massive hull gently as fiery stabs of disintegrator exhaust shot outward into the black, star-flaring vista of space in the island universe of Messier 13. Millions of suns with several thousand planets made this great star cluster one of the most active in all the list of interplanetary rocketeering. No less than four hundred space-ship routes, officered by beings from hundreds of life-spawning worlds, plied here and there in ceaseless trade. There were men from Earth, brogites from the fourth Antares planet; lithe, jet black zannicans from the massive, lone planet of Formalhaut. And still others—strange beings with one love in common, that of hurtling across space in the gigantic trade rockets of the universe—were to be found in every spaceport ready to sign up for another voyage with any crew and



bound for anywhere. Nels Sundgren, Earth, was one of these. He alone represented the distant System of Sol on this present trip and until the giant brogite, Xoma, introduced himself, he had not heard a word of his native tongue for many months of almost forgotten Earthtime.

"Never heard of Uji-kee," Sundgren muttered. "This is the first time, though, that I've been within a hundred parsecs of this space area. Anyway, Xoma, I'm with you. I've got forty checks of ra to spend—"

"No moneys!" Xoma protested. "Xoma know Uji-kee very well. You come along only. I show you. Uji-kee very much amusing place."

At that moment ship-bells rang out, causing the big brogite to bid hasty goodbye to his new found Earthman friend.

"Work shift signal as you say it." Xoma bowed his ungainly head politely. "Will see again when all oxygen breathers land for Uji-kee, half way through next shift."

Sundgren waved cheerfully. There was an adventure-hopeful glint to his hard blue eyes as he returned to the monotonous details of rewinding the damaged parsector. He'd met brogites before. Liked the ugly beasts for all their revolting appearance in an Earthman's eyes. Brogites were invariably gentle, and stubbornly loyal, too. Sundgren puckered his unshaven jaw into a whistle. Not such a bad contract this time after all. Uji-kee? Funny name! Might be a lot of fun there, too, with Xoma the brogite as guide. Just then a shrill blast of unintelligible invective lashed in his direction. The zannicans were dancing about on their spindly, chitonous legs, hissing at him in the peculiar rage of their kind.

"Sorry," Sundgren grumbled and

stopped his whistling. "Should have known you jumpy black imps of Formalhaut couldn't stand the noise. Oh, well!"

**L**OWER AIRLOCK resounded with a hushed discord of sound. The pungency, peculiar to the commingling of so many and different lifeforms, rankled in the nostrils of the lone Earthman. He stared at the bizarre assembly of beings of all colors, shapes and sizes, reptilian, insect and some remotely mammalian, without actually seeing them. The single-eyed octaped wearing the insignia of a commanding officer, waved antennae feverously as he manipulated the intraship communicator which flashed a series of orders in fourteen languages. Every spaceman must have at least two secondary languages. Sundgren searched the big chart on the wall and found he could decipher three of the fourteen interpretations, none of which even remotely resembled anything spoken upon Earth.

The big airlock portals were swinging back now. The commanders were giving the oxygen breathers a long rest here on Uji-kee. Sundgren found himself tensing with excited expectancy. Stepping out upon a totally strange planet was invariably a thrill. It was this anticipation alone which made hopeless wanderers of so many. Suddenly a heavy paw clapped his shoulder. Sundgren jumped, looking around and up into the fearsome face of the brogite.

"Good oxygen plenty," Xoma muttered. "Others go to spaceport for drink and such. You come other place better, yes?"

"Any place you say, pal," and Sundgren pushed forward with the surging pack, keeping contact with the huge-bodied brogite. They were



going beyond the ship now, scurrying down the ramp to the brownish soil. Sundgren stared about with slowly awakening interest. Two tiny suns illumined a dull, purplish-gray world whose peculiar, aromatic atmosphere tickled his throat and lungs. Some of the other creatures from the massive rocketeer were finding the murky air a painful shock. There were rasping cries, sharp coughs. One pulpos, mottled green and gold sluglike being slumped into an inert heap even before reaching the soil of the new planet.

Sundgren regarded this unfortunate shipmate with callous indifference. He didn't know what sort of a creature the green and gold slug was nor what sort of a world his kind might inhabit.

At a distance there stood a cluster of curious buildings seeming to spring up in the purplish haze like a bed of poisonous mushrooms. That would be Ujiikee Spaceport and it was in this direction that most of the bizarre crew trekked. But Xoma, clutching Sundgren's arm, led him off in another direction. Vaguely, Sundgren recognized this as a meandering path, winding almost haphazardly through a dark forest of grotesque, giant leaved trees. The stinging, spicy smell became cloying. Sundgren held firmly to Xoma's arms, feeling oddly giddy.

"Feel of planet gets you," Xoma explained needlessly. "Always such wherever land. All worlds have each one a different feel, is not so?"

"No argument there," Sundgren grumbled. "But where in Hades you taking me? We should have stopped at Spaceport first anyway. Give me a mug of kreel or two and I can take on anything."

"No kreel," Xoma intoned pleasantly. "No drink like kreel any kind

on Ujiikee. You see why later. Very amusing world, Ujiikee."

"Huh, what's it good for?" the Earthman tried to stare through the haze. He drew his breath sparingly, aware of the spicy burning in his throat which had become even more aggravating with Xoma's assurance that no beverages of any sort were used by the Ujiikee natives. Already he had begun to regret this hurried friendship with the green monster of Aldebaran despite the brogite engineer's knowledge of English.

"Here, so soon," Xoma murmured and guided Sundgren sharply to the left. "Ujiikee city down here. Back there just another company spaceport but here is real Ujiikee."

NELS SUNDGREN gasped. They were standing on the very edge of a precipice, and looking down upon a vast city of spiralled towers. He understood now that the interplanetary spaceport must be situated upon a huge plateau. As he stared more intently he could make out a constant bubbling of hundreds of shimmering balloons rising from the depths to glide here and there about the curious towers.

"But how do we get down there?" Sundgren demanded. "And besides —"

"Much patience plus wisdom of the brogites," Xoma replied, bobbing his grotesque head to show the gentility of his levity. "Ujiikee planet you know is great with universe fame for rare perfumes. But watch, friend Earthman."

Xoma had withdrawn a compact little case containing a score of tightly corked vials. For a moment one huge eye closed speculatively as he fingered them in order to select the one suited for his present purpose.



Carefully removing the cork, Xoma wafted the opened vial before them. Nels Sundgren stared at the massive green brogite with opened mouth.

"They come. See!" Xoma pointed downward toward the tower city in the purple valley. Straight toward them now came sailing an entire fleet of the scintillating balloons. Sundgren groaned a curse, instinctively bracing himself and resting a hand on the brogite.

"Those balls—they're alive! They got hair on one end and—and feet. Why, they're birds!"

"Right," Xoma exulted as he quickly replaced the vial, substituting for it still another. "Almost so, should I correct you, Earthman? Ujikeens very marvelous to smell."

"You mean that bottle of stuff—"

"Assuring," Xoma sucked in his breath sharply. "They smell of a fine keenness. But now, only watch and do as told. We will visit Ujikee such as back in Spaceport they cannot know them."

"Well," Sundgren muttered in confusion. "You've been here before. But I might have known this was a screwy world or there'd be at least one Ujikeen spaceman aboard a liner that made a regular stop here."

But the green brogite was not listening. Deftly uncorking the second vial, he gestured with it significantly. Immediately the two were surrounded by the curious balls. As the singular creatures settled to the ground upon the tiny feet Sundgren observed that they were nearly as tall as the big brogite. Yet there was no face, no eyes nor mouth. Only a tuft of wiry hair at the opposite diameter of the spherical body from the tiny feet. The shimmering bodies were subtly pulsating with some curious system of metabolism beyond the imagination of even such a wanderer

of the void as Nels Sundgren. But what was the brogite doing with that silly looking box of vials? And how did the big green monster think to communicate with this flock of animated soap bubbles?

However, before he could question Xoma the bulbous Ujikees suddenly converged into a single mass. Xoma quickly lifted the astounded Earthman bodily, placing him atop the cushioning mass and then clambered up beside him. At once they began floating down. The sharp hiss of escaping air was the only sound made.

"Very fine, no?" Xoma spread his great arms in a gesture to include the entire valley. "See up. Spaceport on mountain."

Sundgren looked back up. The cliffside rose a sheer thousand feet or more from the topmost spire, and in the hazy atmosphere there was no sign of a roadway by which they might return. Abruptly the descent was halted. They were standing in a sort of public square about which rose the strange towers like gaunt, unadorned pillars about which spiral ramps had been attached. Here and there tiny holes opened into a tower but nowhere was there an aperture anywhere near wide enough to admit a portly bladder being. The air down here, though markedly clearer, was heavy with a musty stench which was far less acceptable than the spicy aroma of the higher altitude.

"Must be quick," Xoma's voice was lowered. "These people very dogged. Want more that fine smell."

"You mean the odor from those bottles attracted them? Is that why they carried us down here?"

"Sharply pertinent, Earthman," Xoma continued. "Now must lose bladder being. I run. You follow. Much fun. See?"



XOMA was surprisingly agile. He seemed to be heading straight toward the center of this queer tower city while behind them, evidently bewildered, the living spheres bobbed up and down in a desperate but futile effort to catch the strange intruders. Sundgren was relieved to note that the Ujikeen bladder beings could move about the surface only with difficulty. It was also clear that they had but a limited amount of intelligence.

But Xoma had evidently arrived at his goal. He was examining each tower intently, finally coming upon one which possessed an opening large enough to admit his body.

Inside was a large, circular room, moist and rich with a honeyed fragrance. Sundgren blinked, adjusting his eyes to the soft light which seemed to emanate from the shell-like stuff of the walls. They were in the middle of a lush growth of velvet-soft plant-like bodies. Long and narrow leaves extended from squat bushes. Upon a flower-like stalk in the center of each bush there grew a curiously mottled ball.

Xoma was snapping the stems and biting into the strange balls avidly, pausing only long enough to motion that the Earthman was to do the same. Sundgren hesitated only a moment. After the first bite he felt a tingling sense of elation. He grinned knowingly. Hadn't he always known these big ugly brogites were smart? A dinner of this crazy fruit and they'd both have a jag on that would lay them out for the next ten parsecs.

Finally Xoma stopped him. "So much!" the brogite warned. "Go to head quick. Very fine, no?"

"Never heard of such stuff," Sundgren agreed. "But how is it there was no mention of it on the ship?

Why, if these dodos were halfway smart they'd clean up a journey's wages selling—"

"No, no! Ujikee very upset. Come."

Reluctantly the Earthman followed the brogite. Nels Sundgren was just beginning to feel expansive. The spaceship and duty were remote realities. This was a beautiful if somber world. Outside again the two ran swiftly. Sundgren was panting in his effort to keep up with Xoma. There was something amiss, too, because Xoma was taking precautions to avoid the Ujikeens.

"Very upset," Xoma finally explained. "Ujikeens grow bush in towers. Rich smell exude through holes and are breathed by Ujikeens for lifestuff. No drink, no eat, only smell, see?"

"You mean all these puff balls do is smell?"

"Right! Puff is full of air which goes in and comes out of bladder skin. Such explains clearness of air down here."

"I see," Sundgren mumbled. "But what are we running for?"

"Ujikeen smell us. Smell flower stuff from breath. Earthman, run!"

Sundgren glanced up as the brogite yelled. To his terror he saw the sky suddenly fill with hundreds of the queer bladder beings. His own mouth gaped to shriek out, yet before the sound could escape his throat a mass of rubbery stuff pressed down upon him. Sundgren struck blindly. It was like fighting a milling, choking mass of balloons. The soft rubbery stuff slid over his hands and face and seemingly tried to strangle him by clamping over his nose and mouth. The air was sucked out of his lungs. A burning pain throbbled in his chest. He gasped, choked, and finally pried two fingers between the smothering bladder and



his mouth. He sucked madly for air. His ears were ringing now. He wanted to cry out to Xoma but could do no more than moan as he exhaled.

Yet he could breathe now. Sanity returned. He groped to his feet, pushing and stabbing at the bulbous masses. His one thought was to get away. Striking out with the one hand, he kicked viciously at the pressing bladders, gaining a tiny clearance. Like one possessed, he hurled himself forward. His charging body caused the near weightless bladder beings to bound like huge balloons. Once he fancied he heard Xoma's cry and plowed on determinedly in what he thought was the direction of the sound. Then suddenly he found himself amidst dense, low-growing shrubbery. For a moment the bouncing, surging bladder beings were at a disadvantage. Sundgren threw himself into the shrub, clawing and running until his muscles, accustomed for so long to the gentle artificial gravity of a rocketeer, ached almost beyond endurance.

**H**E HAD eluded the bladder beings. They could not very well penetrate the dark, musty shrub area, he concluded. Sundgren, wiping the sweat from his face, stood up cautiously, straining his ears for the slightest sound in this deathly quiet world. His voice seemed thunderous as he shouted Xoma's name.

Not until he had shouted several times and received no reply did he begin to become uneasy. This was a strangely soundless world, without voice or even the chirp of an insect. Xoma should have heard. A sharp sting of fear got him now. Perhaps the big brogite hadn't been as lucky as the Earthman. Xoma might have

been smothered by those aroma-crazed bladder beings.

Sundgren stalked cautiously in what he thought was the direction of the queer bladder beings' city, keeping well in the protective shelter of the low-growing shrub. Once he glanced skyward and was distressed to see but one sun in that purplish black sky. He called again.

The shrubbery suddenly merged into a grove of tree-like growths—whose tall, whitish stalks were barren of limbs for thirty feet. There they formed a profusion of clustering flower masses. A heady, nauseating odor pervaded the dark, ominously still cavern of tree trunks.

Nels Sundgren halted. He was lost and recognized the fact without a great deal of panic. He had spent too many days and nights upon distant, eerie worlds to be easily frightened. Yet he did feel a sharp pang of concern for the big brogite. Xoma, he was thinking, was a wonderfully intelligent friend and above all else spoke English. That was something. Vaguely, Sundgren was aware of a half-formed decision to sign up for a Sol-bound liner upon the very next opportunity. It wasn't that he cared particularly for the company of men. He knew a dozen different creatures just as companionable. But the good, wholesome sound of English words—suddenly Sundgren let out a cry! Something like the lash of a whip had stunned him sharply on the forehead.

Sundgren jumped back, one fist clenched and the other lifted defensively before his face. In the purplish gloom he saw the huge, spinous bush whose long, sensitive stalks quivered like the antennae upon a monster ant-man of the fourth Centauri planet. But this was just a bush. Sundgren grinned with relief



and approached it with the idea of tearing off a good-sized stick to use as a poke against the bladder beings. Yet as soon as his hand gripped a stalk the entire plant quivered. There came a sudden, sharp poof! Sundgren drew back, closing his eyes tight against the stinging vapor. The noxious stench momentarily sickened him. He was gasping for breath, clearing his throat and trying vainly to spit out the offensive taste. But now the tree-like growths were becoming strangely activated. The flexible trunks swept down and the flower masses swept over him, slimy tendrils clutching tight to hair, skin and clothing.

Tearing at the succulent growths which suddenly fought to smother him, the terrified Earthman struggled away from the scent-maddened trees. His face felt raw. Trickle of blood formed beneath clutching tendrils. Again and again he ripped the flower masses away from his face. Weak and panting for breath he scrambled down among the shrubs again. The madness of Uji-kee was beyond all reasoning. It seemed that the entire planet lived upon odors, was moved to action by certain smells. Now, and possibly too late, he understood that case of vials which Xoma had brought along. With smells you could do anything here on Uji-kee. But you had to have the right smells. Sundgren laughed aloud, a little madly he recognized, as his voice reverberated in his ears against that awful soundlessness of this queer world. Xoma, he mumbled aloud. He must find Xoma.

The darkness of the weird Uji-keen night was broken by the ruddy glow of a huge moon. Long, ominously silent shadows stretched over the valley. The Earthman, creeping forward cautiously, fought the fatigue

of combined nervous shock and hunger. The exhilarating effect of the bulb fruit from the bladder beings' towers had worn off. Far ahead of him, doubtlessly several miles distant, he could see the sharp outline of the mountain plateau. But in between was the tower city of the bladder beings. There was, so far as he knew, no way to climb up that steep precipice.

Besides, he could not return without the brogite! The loyalty of culture was as real as the instinctive loyalty of race. Xoma was certainly not a man and yet the huge green monster was undeniably something possessing the status and the dignity of a human being.

"Xoma!" he called again, standing erect and keeping an alert eye for either bladder beings or some strange growth which might find his odorous person irresistible. There came the faint rustle of a footfall somewhere in the darkness behind him. Sundgren tensed. His voice became low-pitched, defiantly firm. "Xoma, is that you?"

There were other padding, rustling, almost feathery sounds now. The Earthman steeled his nerves as he strained to peer into the gloom. His brain functioned with remarkable clarity. Was not Uji-kee supposed to be virtually without animal life? He was sure now that Xoma had said as much, or at any rate the brogite had implied that the bladder beings were the dominant lifeform here. Possibly this was a search party from the spaceship come to locate the two oxygen-breathers who had failed to appear at the company recreation building. But this was unlikely. Upon such planets as Uji-kee they never checked up until ship-bells' sound prior to take-off.

Sundgren raised his voice. He



racked his brain for greetings in every language he knew. Hissed the Ismusan for "Who goes there?" Tried the widely known clacking sounds of the slug-like creatures from the blue planet of the tri-sun system in Messier 13. This was the official language of the company for which he now worked. But there was no response save the increased pad and scrape of invisible feet.

**H**E STARTED to back away from the sounds. Then something entangled his legs. Sundgren pitched headlong, flailing his arms. Yet he couldn't get up. Long, rope-like things twisted about his body, wrapping tightly around his arms and legs. Bird-like claws scratched and tightened upon his mesh-metal service uniform. Blind with terror, Sundgren twisted, turned, heaved his body. The bands, like sleek, muscular tentacles, only grew more taut. He felt the brush of stiff wiry masses of hair sweep across his face.

He was moving now. Only inches above the ground, he felt his body being moved forward as though borne by a hundred dwarfish things of prodigious strength. A sickeningly sweet odor filled his gasping lungs. But he could see a little. The roseate moonlight was falling full upon a clearing. Sundgren summoned all his strength, lifting his head barely an inch.

The ludicrous spectacle made his body chill with horror. Queer rope-like things with tiny feet on one end and stiff metallic tufts of hair on the other were wrapped about him till he could not move. But those feet—and the tufts of hair! Involuntarily he cried out. The bladder beings, completely deflated, had stolen upon him in the darkness. Their bulbous bodies, now stretched into the rub-

bery likeness of an empty balloon, were wound about him. The underpart of his prone body seemed alive with masses of tiny feet which marched steadily along with the perfect rhythm of a single entity. He saw the tower city. They were approaching an immense building.

There were none of the exotic plants growing in the great circular hall. Sundgren felt himself moved to the spot near the center. He waited expectantly. Would the deflated beings unwind themselves now? Curiously, they had halted. Suddenly he saw a coiled bladder mass approaching. The stiff tuft of hair quivered. The creature suddenly stiffened upon its absurdly tiny feet and then the flat bladder shot upward like a striking snake. There came the hissing rush of air in regular pulsations as the bladder being puffed itself into a giant, living sphere. Sundgren tried to squirm away from the oval smoothness of that shimmering ball. The horror of choking film charged his muscles with renewed fury.

But the inflated monster had bounded back. From those quick, excited pulsations of the body Sundgren knew that something was wrong. The bladder being was obviously bewildered. Now the thing bent over. The brush-like tuft of hair quivered as it barely touched the Earthman's scratched and bleeding face. Again the thing retreated. It seemed to be issuing forth some soundless cry to those which held the prisoner, for almost immediately the bands of deflated bladder were loosened. Sundgren groped to his feet dazedly. The bladder men sprang up about him, and the chamber became for the moment shrill with their pulsating intakes of air.

Nels Sundgren thought swiftly. Something about him had suddenly



nauseated the aroma-sensitive bladder beings. It was either the essence from the strange spinous bush or else—he laughed softly at the thought—or else it was the smell of human blood!

With reckless desperation he rubbed one hand across his bleeding face and quickly smeared the nearest bladder. The being jumped, its heaving sides sending out sharp, quivering whistles of air. Instantly there came a rush of air as the other beings deflated and hastily scurried from the room. Nels Sundgren shouted with the ferocious triumph of a conquering Viking, his blue eyes flashing and his blond hair standing awry upon his head.

Then the cry died out sharply. Sundgren held his breath. Listened! That shout of defiance had aroused another voice. The Earthman rushed to an opening, staring here and there in the dim, moonlit night.

"Xoma!" he screamed.

"Here," a voice returned from a tower near the very edge of the city. "My Earth friend, to you it is greetings." There followed a babble in the speech of the brogites which, despite the fact he could not understand one word of it, Nels Sundgren knew to be a song of hilarity.

He squirmed through a narrow hole into the distant tower. A momentary flash of angry resentment coursed through his stout body, for there, lying amid the crushed bushes of the precious nectar-bulbs, was the gigantic green hulk of Xoma the brogite.

"You drunken green ape!" Sundgren charged forward but being no match for the brogite giant the scuffle was soon ended. Now Xoma stumbled awkwardly to his feet.

"Earthman," the huge monster's voice was ridiculously plaintive. "So

sorry. Thought to escape. Hide in here to await going away of bladder beings." He waved his paws about. "Like I warned. Too much. Eat too much. Go happy in head. Forget. But now will forgive?"

For an instant Sundgren glared into those huge unblinking eyes. Then the Earthman grinned understandingly.

"Can we get back?"

"Can!" Xoma's gargantuan jaw gaped joyously at the forgiveness. Jubilantly he displayed his case of vials. "Smell crazy beings will take. Go back now. First Xoma must drink—so." He swallowed the contents of one of the vials. Grimaced. "Breath very not pleasant. Understand? Now can go. But hold. Must take off blood smell Earthman's face. Blood smell scare bladders. I fix."

**N**ELS SUNDGREN held his breath while the cluster of eager bladder beings, obeying some powerful scent, speedily lifted the two intruders to the ledge. Again Xoma took out a vial, uncorked it and with a gesture of generosity sprinkled it upon the milling balloon masses.

"Farewell, puffies," he sighed, still obviously elated by the quantity of bulbs he had eaten. Then throwing a great green arm about the Earthman he pointed into the misty distance. "Very fine fun, yes? We go on fine bender again come to oxygen planet? Some day, Earthman, I think to go to Sol System. Sign up for big contract go to Earth. Maybe go to place called New York. What think, Earthman?"

"Oh, sure," Sundgren answered absentmindedly. "But this next oxygen-planet stop. What sort of a place is it, Xoma?"



# THE SECRET SENSE

by Isaac Asimov

(Author of "Homo Sol," "Trends," etc.)



The Martians couldn't taste and their hearing was bad, but they had a secret sense all of their own.

**T**HE LILTING strains of a Strauss waltz filled the room. The music waxed and waned beneath the sensitive fingers of Lincoln Fields, and through half-closed eyes he could almost see whirling

figures pirouetting about the waxed floor of some luxurious salon.

Music always affected him that way. It filled his mind with dreams of sheer beauty and transformed his room into a paradise of sound. His



hands flickered over the piano in the last delicious combinations of tones and then slowed reluctantly to a halt.

He sighed and for a moment remained absolutely silent as if trying to extract the last essence of beauty from the dying echoes. Then he turned and smiled faintly at the other occupant of the room.

Garth Jan smiled in turn but said nothing. Garth had a great liking for Lincoln Fields, though little understanding. They were worlds apart—literally—for Garth hailed from the giant underground cities of Mars while Fields was the product of sprawling Terrestrial New York.

"How was that, Garth, old fellow?" questioned Fields doubtfully.

Garth shook his head. He spoke in his precise, painstaking manner, "I listened attentively and can truly say that it was not unpleasant. There is a certain rhythm, a cadence of sorts, which, indeed, is rather soothing. But beautiful? No!"

There was pity in Fields' eyes—pity almost painful in its intensity. The Martian met the gaze and understood all that it meant, yet there was no answering spark of envy. His bony giant figure remained doubled up in a chair that was too small for him and one thin leg swung leisurely back and forth.

Fields lunged out of his seat impetuously and grasped his companion by the arm. "Here! Seat yourself on the bench."

Garth obeyed genially. "I see you want to carry out some little experiment."

"You've guessed it. I've read scientific works which tried to explain all about the difference in sense-equipment between Earthman and Martian, but I never could quite grasp it all."

He tapped the notes C and F in a

single octave and glanced at the Martian inquiringly.

"If there's a difference," said Garth doubtfully, "it's a very slight one. If I were listening casually, I would certainly say you had hit the same note twice."

The Earthman marvelled. "How's this?" He tapped C and G.

"I can hear the difference this time."

"Well, I suppose all they say about your people is true. You poor fellows—to have such a crude sense of hearing. You don't know what you're missing."

The Martian shrugged his shoulders fatalistically. "One misses nothing that one has never possessed."

Garth Jan broke the short silence that followed. "Do you realize that this period of history is the first in which two intelligent races have been able to communicate with each other? The comparison of sense equipment is highly interesting—and rather broadens one's views on life."

"That's right," agreed the Earthman, "though we seem to have all the advantage of the comparison. You know a Terrestrial biologist stated last month that he was amazed that a race so poorly equipped in the matter of sense-perception could develop so high a civilization as yours."

"All is relative, Lincoln. What we have is sufficient for us."

Fields felt a growing frustration within him. "But if you only *knew*, Garth, if you only *knew* what you were missing.

"You've never seen the beauties of a sunset or of dancing fields of flowers. You can't admire the blue of the sky, the green of the grass, the yellow of ripe corn. To you the world consists of shades of dark and light." He shuddered at the thought. "You can't smell a flower or appreciate its



delicate perfume. You can't even enjoy such a simple thing as a good, hearty meal. You can't taste nor smell nor see color. I pity you for your drab world."

"What you say is meaningless, Lincoln. Waste no pity on me, for I am as happy as you." He rose and reached for his cane—necessary in the greater gravitational field of Earth.

"You must not judge us with such easy superiority, you know." That seemed to be the galling aspect of the matter. "We do not boast of certain accomplishments of our race of which you know nothing."

And then, as if heartily regretting his words, a wry grimace overspread his face, and he started for the door.

**F**IELDS sat puzzled and thoughtful for a moment, then jumped up and ran after the Martian who was stumping his way towards the exit. He gripped Garth by the shoulder and insisted that he return.

"What did you mean by that last remark?"

The Martian turned his face away as if unable to face his questioner. "Forget it, Lincoln. That was just a moment of indiscretion when your unsolicited pity got on my nerves."

Fields gave him a sharp glance. "It's true, isn't it? It's logical that Martians possess senses Earthmen do not, but it passes the bounds of reason that your people should want to keep it secret."

"That is as it may be. But now that you've found me out through my own utter stupidity, you will perhaps agree to let it go no further?"

"Of course! I'll be as secret as the grave, though I'm darned if I can make anything of it. Tell me, of what nature is this secret sense of yours?"

Garth Jan shrugged listlessly. "How can I explain? Can you define color to me, who cannot even conceive it?"

"I'm not asking for a definition. Tell me its uses. Please," he gripped the other's shoulder, "you might as well. I have given my promise of secrecy."

The Martian sighed heavily. "It won't do you much good. Would it satisfy you to know that if you were to show me two containers, each filled with a clear liquid, I could tell you at once whether either of the two were poisonous? Or, if you were to show me a copper wire, I could tell instantly whether an electric current were passing through it, even if it were as little as a thousandth of an ampere. Or I could tell you the temperature of any substance within three degrees of the true value even if you held it as much as five yards away. Or I could—well, I've said enough."

"Is that all?" demanded Fields, with a disappointed cry.

"What more do you wish?"

"All you've described is very useful—but where is the beauty in it? Has this strange sense of yours no value to the spirit as well as to the body?"

Garth Jan made an impatient movement. "Really, Lincoln, you talk foolishly. I have given you only that for which you asked—the uses I put this sense to. I certainly didn't attempt to explain its nature. Take your color sense. As far as I can see its only use is in making certain fine distinctions which I cannot. You can identify certain chemical solutions, for instance, by something you call color when I would be forced to run a chemical analysis. Where's the beauty in that?"

Field opened his mouth to speak



but the Martian motioned him testily into silence. "I know. You're going to babble foolishness about sunsets or something. But what do you know of beauty? Have you ever known what it was to witness the beauty of the naked copper wires when an AC current is turned on? Have you sensed the delicate loveliness of induced currents set up in a solenoid when a magnet is passed through it? Have you ever attended a Martian *portwem*?"

Garth Jan's eyes had grown misty with the thoughts he was conjuring up, and Fields stared in utter amazement. The shoe was on the other foot now and his sense of superiority left him of a sudden.

"Every race has its own attributes," he mumbled with a fatalism that had just a trace of hypocrisy in it, "but I see no reason why you should keep it such a blasted secret. We Earthmen have kept no secrets from your race."

"Don't accuse us of ingratitude," cried Garth Jan vehemently. According to the Martian code of ethics, ingratitude was the supreme vice, and at the insinuation of that Garth's caution left him. "We never act without reason, we Martians. And certainly it is not for our own sake that we hide this magnificent ability."

The Earthman smiled mockingly. He was on the trail of something—he felt it in his bones—and the only way to get it out was to *tease* it out.

"No doubt there is some nobility behind it all. It is a strange attribute of your race that you can always find some altruistic motive for your actions."

**G**ARTH JAN bit his lip angrily. "You have no right to say that." For a moment he thought of

pleading worry over Fields' future peace of mind as a reason for silence, but the latter's mocking reference to "altruism" had rendered that impossible. A feeling of anger crept over him gradually and that forced him to his decision.

There was no mistaking the note of frigid unfriendliness that entered his voice. "I'll explain by analogy." The Martian stared straight ahead of him as he spoke, eyes half-closed.

"You have told me that I live in a world that is composed merely of shades of light and dark. You try to describe a world of your own composed of infinite variety and beauty. I listen but care little concerning it. I have never known it and never can know it. One does not weep over the loss of what one has never owned.

"*But*—what if you were able to give me the ability to see color for five minutes? What if, for five minutes, I reveled in wonders undreamed of? What if, after those five minutes, I have to return it *forever*? Would those five minutes of paradise be worth a lifetime of regret afterwards—a lifetime of dissatisfaction because of my own shortcomings? Would it not have been the kinder act never to have told me of color in the first place and so have removed its ever-present temptation?"

Fields had risen to his feet during the last part of the Martian's speech and his eyes opened wide in a wild surmise. "Do you mean an Earthman can possess the Martian sense if so desired?"

"For five minutes in a lifetime," Garth Jan's eyes grew dreamy, "and in those five minutes sense——"

He came to a confused halt and glared angrily at his companion, "You know more than is good for



—by your own ethics. You owe me gratitude, now, because it was through me you gained entrance into the houses of the greatest and most honorable men of Earth.”

“I know that,” Garth Jan flushed angrily. “You are impolite to remind me of it.”

“I have no choice. You acknowledged the gratitude you owe me in actual words, back on Earth. I demand the chance to possess this mysterious sense you keep so secret—in the name of this acknowledged gratitude. Can you refuse now?”

“You know I can’t,” was the gloomy response. “I hesitated only for your own sake.”

The Martian rose and held out his hand gravely, “You have me by the neck, Lincoln. It is done. Afterwards, though, I owe you nothing more. This will pay my debt of gratitude. Agreed?”

“Agreed!” The two shook hands and Lincoln Fields continued in an entirely different tone. “We’re still friends, though, aren’t we? This little altercation won’t spoil things?”

“I hope not. Come! Join me at the evening meal and we can discuss the time and place of your—er—five minutes.”

Lincoln Fields tried hard to down the faint nervousness that filled him as he waited in Garth Jan’s private “concert”-room. He felt a sudden desire to laugh as the thought came to him that he felt exactly as he usually did in a dentist’s waiting room.

He lit his tenth cigarette, puffed twice and threw it away, “You’re doing this very elaborately, Garth.”

The Martian shrugged, “You have only five minutes so I might as well see to it that they are put to the best possible use. You’re going to ‘hear’ part of a *portwem* which is to

our sense what a great symphony (is that the word?) is to sound.”

“Have we much longer to wait? The suspense, to be trite, is terrible.”

“We’re waiting for Novi Lon, who is to play the *portwem*, and for Done Vol, my private physician. They’ll be along soon.”

Fields wandered on to the low dais that occupied the center of the room and regarded the intricate mechanism thereupon with curious interest. The fore-part was encased in gleaming aluminum leaving exposed only seven tiers of shining black knobs above and five large white pedals below. Behind, however, it lay open and within there ran crossings and recrossings of fine wires in incredibly complicated paths.

“A curious thing, this,” remarked the Earthman.

The Martian joined him on the dais, “It’s an expensive instrument. It cost me ten thousand Martian credits.”

“How does it work?”

“Not so differently from a Terrestrial piano. Each of the upper knobs controls a different electric circuit. Singly and together an expert *portwem* player could, by manipulating the knobs, form any conceivable pattern of electric current. The pedals below control the strength of the current.”

Fields nodded absently and ran his fingers over the knobs at random. Idly, he noticed the small galvanometer located just above the keys kick violently each time he depressed a knob. Aside from that, he sensed nothing.

“Is the instrument really playing?”

The Martian smiled, “Yes, it is. And a set of unbelievably atrocious discords too.”

He took a seat before the instrument and with a murmured “Here’s



you. See that you don't forget your promise."

He rose hastily and hobbled away as quickly as he could, leaning heavily upon the cane. Lincoln Fields made no move to stop him. He merely sat there and thought.

**T**HE GREAT height of the cavern shrouded the roof in misty obscurity in which, at fixed intervals, there floated luminescent globes of radite. The air, heated by this subterranean volcanic stratum, wafted past gently. Before Lincoln Fields stretched the wide, paved avenue of the principal city of Mars, fading away into the distance.

He clumped awkwardly up to the entrance of the home of Garth Jan, the six-inch-thick layer of lead attached to each shoe a nuisance unending. Though it was still better than the uncontrollable bounding Earth muscles brought about in this lighter gravity.

The Martian was surprised to see his friend of six months ago but not altogether joyful. Fields was not slow to notice this but he merely smiled to himself. The opening formalities passed, the conventional remarks were made, and the two seated themselves.

Fields crushed the cigarette in the ash-tray and sat upright suddenly serious. "I've come to ask for those five minutes you claim you can give me! May I have them?"

"Is that a rhetorical question? It certainly doesn't seem to require an answer." Garth's tone was openly contemptuous.

The Earthman considered the other thoughtfully. "Do you mind if I outline my position in a few words?"

The Martian smiled indifferently.

"It won't make any difference," he said.

"I'll take my chance on that. The situation is this: I've been born and reared in the lap of luxury and have been most disgustingly spoiled. I've never yet had a reasonable desire that I have not been able to fulfill, and I don't know what it means *not* to get what I want. Do you see?"

There was no answer and he continued, "I have found my happiness in beautiful sights, beautiful words, and beautiful sounds. I have made a cult of beauty. In a word, I am an aesthete."

"Most interesting," the Martian's stony expression did not change a whit, "but what bearing has all this on the problem at hand?"

"Just this: You speak of a new form of beauty—a form unknown to me at present and entirely inconceivable even, but one which could be known if you so wished. The notion attracts me. It more than attracts me—it makes its demands of me. Again I remind you that when a notion begins to make demands of me, I yield—I always have."

"You are not the master in this case," reminded Garth Jan. "It is crude of me to remind you of this, but you cannot force *me*, you know. Your words, in fact, are almost offensive in their implications."

"I am glad you said that, for it allows me to be crude in my turn without offending my conscience."

Garth Jan's only reply to this was a self-confident grimace.

"I make my demand of you," said Fields, slowly, "in the name of gratitude."

"Gratitude?" the Martian started violently.

Fields grinned broadly, "It's an appeal no honorable Martian can refuse



how!" his fingers skimmed rapidly and accurately over the gleaming buttons.

The sound of a reedy Martian voice crying out in strident accents broke in upon him, and Garth Jan ceased in sudden embarrassment. "This is Novi Lon," he said hastily to Fields, "As usual he does not like my playing."

Fields rose to meet the newcomer. He was bent of shoulder and evidently of great age. A fine tracing of wrinkles, especially about eyes and mouth, covered his face.

"So this is the young Earthman," he cried, in strongly-accented English. "I disapprove your rashness but sympathize with your desire to attend a *portwem*. It is a great pity you can own our sense for no more than five minutes. Without it no one can truly be said to live."

Garth Jan laughed, "He exaggerates, Lincoln. He's one of the greatest musicians of Mars, and thinks anyone doomed to damnation who would not rather attend a *portwem* than breathe." He hugged the older man warmly, "He was my teacher in my youth and many were the long hours in which he struggled to teach me the proper combinations of circuits."

"And I have failed after all, you dunce," snapped the old Martian. "I heard your attempt at playing as I entered. You still have not learned the proper *fortgass* combination. You were desecrating the soul of the great Bar Danin. My pupil! Bah! It is a disgrace!"

The entrance of the third Martian, Done Vol, prevented Novi Lon from continuing his tirade. Garth, glad of the reprieve, approached the physician hastily.

"Is all ready?"

"Yes," growled Vol surlily, "and a

particularly uninteresting experiment this will be. We know all the results beforehand." His eyes fell upon the Earthman, whom he eyed contemptuously. "Is this the one who wishes to be inoculated?"

Lincoln Fields nodded eagerly and felt his throat and mouth go dry suddenly. He eyed the newcomer uncertainly and felt uneasy at the sight of a tiny bottle of clear liquid and a hypodermic which the physician had extracted from a case he was carrying.

"What are you going to do?" he demanded.

"He'll merely inoculate you. It'll take a second," Garth Jan assured him. "You see, the sense-organs in this case are several groups of cells in the cortex of the brain. They are activated by a hormone, a synthetic preparation of which is used to stimulate the dormant cells of the occasional Martian who is born—er—'blind.' You'll receive the same treatment."

"Oh!—then Earthmen possess those cortex cells?"

"In a very rudimentary state. The concentrated hormone will activate them, but only for five minutes. After that time, they are literally blown out as a result of their unwonted activity. After that, they can't be re-activated under *any* circumstances."

Done Vol completed his last-minute preparations and approached Fields. Without a word, Fields extended his right arm and the hypodermic plunged in.

With the operation completed, the Terrestrial waited a moment or two and then essayed a shaky laugh, "I don't feel any change."

"You won't for about ten minutes," explained Garth. "It takes time. Just sit back and relax. Novi Lon



has begun Bar Danin's 'Canals in the Desert'—it is my favorite—and when the hormone begins its work you will find yourself in the very middle of things."

Now that the die was cast irrevocably, Fields found himself stonily calm. Novi Lon played furiously and Garth Jan, at the Earthman's right, was already lost in the composition. Even Done Vol, the fussy doctor, had forgotten his peevishness for the nonce.

Fields snickered under his breath. The Martians listened attentively but to him the room was devoid of sound and—almost—of all other sensation as well. What—no, it was impossible, of course—but what if it were just an elaborate practical joke. He stirred uneasily and put the thought from his mind angrily.

The minutes passed; Novi Lon's fingers flew; Garth Jan's expression was one of unfeigned delight.

Then Lincoln Fields blinked his eyes rapidly. For a moment a nimbus of color seemed to surround the musician and his instrument. He couldn't identify it—but it was there. It grew and spread until the room was full of it. Other hues came to join it and still others. They wove and wavered; expanding and contracting; changing with lightning speed and yet staying the same. Intricate patterns of brilliant tints formed and faded, beating in silent bursts of color upon the young man's eyeballs.

Simultaneously, there came the impression of sound. From a whisper it rose into a glorious, ringing shout that wavered up and down the scale in quivering tremolos. He seemed to hear every instrument from fife to bass viol simultaneously, and yet, paradoxically, each rang in his ear in solitary clearness.

And together with this, there came the more subtle sensation of odor. From a suspicion, a mere trace, it waxed into a phantasmal field of flowers. Delicate spicy scents followed each other in ever stronger succession; in gentle wafts of pleasure.

Yet all this was nothing. Fields knew that. Somehow, he *knew* that what he saw, heard, and smelt were mere delusions—mirages of a brain that frantically attempted to interpret an entirely new conception in the old, familiar ways.

Gradually, the colors and the sounds and the scents died. His brain was beginning to realize that that which beat upon it was something hitherto unexperienced. The effect of the hormone became stronger, and suddenly—in one burst—Fields realized what it was he sensed.

He didn't see it—nor hear it—nor smell it—nor taste it—nor feel it. He knew what it was but he couldn't think of the word for it. Slowly, he realized that there wasn't any word for it. Even more slowly, he realized that there wasn't even any *concept* for it.

Yet he knew what it was.

There beat upon his brain something that consisted of pure waves of enjoyment—something that lifted him out of himself and pitched him headlong into a universe unknown to him earlier. He was falling through an endless eternity of—something. It wasn't sound or sight but it was—something. Something that enfolded him and hid his surroundings from him—that's what it was. It was endless and infinite in its variety and with each crashing wave, he glimpsed a farther horizon, and the wonderful cloak of sensation became thicker—and softer—and more beautiful.

Then came the discord. Like a little crack at first—marring a perfect



beauty. Then spreading and branching and growing wider, until, finally, it split apart thunderously—though without a sound.

Lincoln Fields, dazed and bewildered, found himself back in the concert room again.

He lurched to his feet and grasped Garth Jan by the arm violently, "Garth! Why did he stop? Tell him to continue! Tell him!"

Garth Jan's startled expression faded into pity, "He is still playing, Lincoln."

The Earthman's befuddled stare showed no signs of understanding. He gazed about him with unseeing eyes. Novi Lon's fingers sped across the keyboard as nimbly as ever; the expression on his face was as rapt as ever. Slowly, the truth seeped in, and the Earthman's empty eyes filled with horror.

He sat down, uttering one hoarse cry, and buried his head in his hands.

The five minutes had passed! There could be no return!

Garth Jan was smiling—a smile of dreadful malice, "I had pitied you just a moment ago, Lincoln, but now I'm glad—glad! You forced this out of me—you made me do this. I hope you're satisfied, because I certainly am. For the rest of your life," his voice sank to a sibilant whisper, "you'll remember these five minutes and know what it is you're missing—what it is you can never have again. You are blind, Lincoln,—blind!"

The Earthman raised a haggard face and grinned, but it was no more than a horrible baring of the teeth. It took every ounce of will-power he possessed to maintain an air of composure.

He did not trust himself to speak. With wavering step, he marched out of the room, head held high to the end.

And within, that tiny, bitter voice, repeating over and over again, "You entered a normal man! You leave blind—*blind*—BLIND."

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## WORLDS IN EXILE

by Elton V. Andrews

The sun is dying. Icy Terra's sky  
Turns liquid, freezes, falls in airy snow:  
In voids beyond, where never living eye  
Again shall see them, other planets grow  
Obscure and dark . . . . The ruddy eye of Mars  
Bright Venus, Jupiter, and all his train  
Are hidden by the gleaming of the stars  
They once outshone . . . . Impotent, futile, vain,  
The bickering of life they spawned and mourned  
Is silent. Other forms knew life than men  
On their broad bosoms; other forms that scorned  
Man's puny will . . . . And e'en their Titan spark  
Of years is through, nor may we comprehend  
The Cyclopean meaning of the end.



# THE LAST VIKING

by Hugh Raymond

(Author of "He Wasn't There," "The Vanguard," etc.)



Johannsohn was determined to become a Viking of space, to be the very first space pirate. But the year was 2061.

**T**HE GUARDS weren't far behind and Johannsohn stopped a moment behind a great, gleaming pillar to rest. His tired body folded to the metal floor. Then came the sound of the running feet of several uniformed men rising in

volume, then falling to a mere patter. He heard the sound with vague interest.

The fugitive smiled wearily to himself. His big eyes, blood-shot, closed for an instant. He rubbed his aching legs absently. The pain went



unnoticed; he couldn't feel pain any more. All that was over and done with. Now there was just an elated confusion and somehow his mind was clearer than it had been for many years. Sitting in the dark with the muffled noises of clanking and the creak of mighty freight elevators piercing the silence, he tried to think.

He had been free for six hours. First there had been the tremendous effort of the decision to escape. It was not an effort to evade compulsion. In the scientific world of 2061 there was no compulsion. But he had to break decisively with a long past. Never before had he thought actually to question the logic of that life which filtered into his cloudy brain through television screens and loudspeakers and soothing attendants and understanding doctors who spoke to him with kindly voices and tremendous enthusiasm. But the thing which had been slowly building up for many years finally reached its nebulous conclusion. His nurse, for an hour, had left him alone on the roof of the great hospital. When the moment of great decision came he simply took the elevator down to the street level and walked away. He knew, of course, that he would be immediately followed and accurately traced. Which was precisely what happened. For awhile he roamed the pretty lanes and boulevards of the far-flung social-complex. Then the first exaltation died down and his disease took hold grimly.

There was no doubt that Johannsohn was a diseased man. At first he had gotten along well as a sort of harmless moron who operated a small machine in an obscure factory an hour or two a day, then went home, ate, slept and prepared for another day's work. But there was more behind his bullet head than

what his fellow workers gave him credit for. Johannsohn knew this to be a fact because he did things no one else ever thought of doing. He read very old books. So did everyone else, for that matter; but Johannsohn brooded over them. The spiritual upswing of the modern world was a movement totally beyond his mental reach. He failed to glimpse for an instant the soul of the complex life of the planet. Civilization was something above Johannsohn; as far as he was concerned it represented an easy and inexplicable way to eat, sleep, work and indulge in various animal pleasures.

When he had finally cracked and had been taken into custody of the proper authorities, the procedure had had no effect upon him whatsoever. He let himself be taken and examined and probed and classified and went on brooding. They allowed him to read the old books when he wanted them.

Johannsohn didn't know it but he had been pronounced incurable; the world was simply ignoring him as much as possible and waiting insensibly for him to die and be put out of the way.

**T**HE UNIFORMED MEN were coming back. He jerked up his head sharply and peered around the pillar. As soon as they had passed he wandered on. For some minutes he strolled erratically, this way and that, then, seized with a sudden inspiration sidled close to the side of the great spaceflyer lying in its cradle. He caressed the knobby, yellow metal surface and knocked buldly on a transparent porthole. Pleased by the humming sounds from within the ship and those caused by the workings of the automatic machinery



about it, he cocked his ear and listened acutely, birdlike.

After a time he crept close to an automatic conveyor belt carrying an endless stream of large metal tubes of helium into an opening in the ship's hull far above. Crouching in the shadows he watched his chance, then, as an empty space on the conveyor swung past, he jumped, clutched firmly at the metal flanges, drew himself to the empty pit and huddled between two large tubes.

He felt himself born aloft with steady, quiet speed. There was a moment of giddiness as the belt swept downward and around a curve, then the light suddenly changed from the brilliance of late afternoon to the soft darkness of the interior of the hull. A huge metal claw reached down to clutch at his body but he avoided it, wriggling out of the tube-pit. He stood up, stepped off the belt, and his feet touched the floor. The belt disappeared into the wall, unheeding.

Johannsohn knew that no one had seen him come aboard. The labor of loading and preparing a space flyer for flight was entirely automatic. Giant machines unloaded the vessels, cleaned them, reloaded them, fueled and set them into firing position. Powered by the might of exploding atoms they ran on endlessly, unwatched by the eye, untended by the hand of man. Occasionally a machine would break down. Such accidents were of no moment. Immediately, circuits would flash into activity, spy-ray beams would focus upon delicate dials and a small repairing machine would spin into life, supplying parts and working over the damaged sections with mechanical hands.

Spaceports were generally silent places inhabited only by the crews of

ships about to take off into space and an occasional calculator or curve-plotter who made the initial charts. The modern world lived in a super-social milieu. Machinery was considered a necessary but unavoidably unaesthetic adjunct to civilization. People kept mostly to the social complexes and the fields and forests where reposed the wells of culture and intellectual sustenance.

The first few moments of absolute freedom filled the fugitive with a new surge of boundless exhilaration. Consciously, he was happy, for perhaps the first time in his life. A feeling of possession and kinship toward the vessel seized him. He stared about him at the confines of the huge storehold where, endlessly, until the hour of departure, the loading belt swept by, giant metal claws moved down and up and higher and higher piled the stacks of flat-ended cylinders. They were loaded with essential gases for Martian mining operations, but Johannsohn knew nothing of that. If he had been told, the fact would have shot a thousand miles over his head. It would have meant nothing to him.

After a while the little light that filtered into the room faded. Night had fallen over the outside world. Johannsohn didn't mind the dark. He rather liked the new sensations of feeling unfamiliar objects and not knowing what they were or what were the secrets they contained. Tirelessly his hands wandered over the rounded cylinders and caressed the rising arm of the unloading machine. Suddenly, the metal arm stopped, folded back into a metal-walled case at the base of the instrument and the whole machine moved on noiseless rollers into the wall. A scratching on the floor told of the passage of the last empty link



of the conveyor belt but Johannsohn didn't know that. He scrupulously avoided the location of the moving chain. When all the noises ceased he stopped moving about the room, lay down on a vacant expanse of floor and went to sleep.

**T**HE SUDDEN ascent into interstellar space at the rate of twenty miles per second awakened the fugitive in a shock of terror. The bottom seemed to be dropping out of his stomach, out of the room, out of his whole world. It took him several minutes to realize what was going on but he finally did. Pressure on every part of his body rendered him completely helpless. He lay bound and heard about him the uneasy noises of heavy cylinders straining to readjust their positions. Several of them clanked noisily out of place, rolled into corners and were quiet. A sudden fear of being crushed overwhelmed him. His heart pounded slowly and heavily. Blood flowed through his veins sluggishly. Great blue whorls of light obliterated the blackness in front of his eyes. He saw streaks and flashes but they were merely the reaction of his terribly strained eye muscles. Suddenly a blood vessel burst in his leg. It went cold and numb. A great fog of pain engulfed the lower part of his body. Sweating profusely he tried to shut out the terrible lights, close his mind to the pain and the terrifying sounds. Consciousness lingered on. He became aware of a slowly rising heat. The floor of the room was becoming hot rapidly. Soon the metal was burning through his scanty clothing. Great patches of his body were aglow with intolerable heat. And slowly the pressure grew and grew. It concentrated now on his legs and feet

and he felt himself being dragged forward over the floor. The spaceship was rising on a long trajectory and what had once been the floor was assuming the position of the walls. His sandal-cased feet touched the new floor and slowly his legs buckled and his body came to rest with his head very near the superheated wall. The new floor was cold. His back ceased to blister but his head was encased in waves of heat. Tortured beyond endurance, the pain-wracked body gave way. He plunged feverishly into a great abyss of unconsciousness.

Johannsohn awakened in a mess of the contents of his own stomach. Involuntarily his system had relieved itself and he had been violently sick while unconscious. Painfully he raised his head and opened his eyes. He saw nothing. The storehold was still in compete darkness. He felt no fear, only a great curiosity. His hands trembled over his body, feeling for sore spots. There was only a diminishing numbness. He let his hands fall to the floor. They fell slowly and encountered no resistance.

Immediately the sluggish mind awakened into complete consciousness. Johannsohn was more awake at that moment than at any time in his life before. It is not enough to call his condition horror stricken. It was all of that and more because of the pitch-blackness and the noises and because he did not remember where he was. His thrashing set his body into violent motion and he went sailing through the air and crashed into the first stack of helium cylinders that got in his way.

Swung sidewise by the shock, his body described an arc and his head struck the now icy-cold wall. It was not a heavy blow but it jarred him



into another period of unconsciousness.

**C**RUEL LIGHT flooded Johannsohn's eyes when next he awoke. The first sensation he experienced was the impact of the light, the second was a feeling of constriction at different parts of his body as though tight bands were holding him to some soft, flabby surface. When he dared open his eyes sufficiently to see they confirmed this impression. He was lying on a small upholstered couch in a large, brilliantly lighted control room and his body was held to the couch with many fine bands of transparent fabric.

Three pairs of eyes looked into his calmly. Suddenly he felt a stab of terror. Then other sensations crowded in. A small pain and a slow lassitude.

A firm hand fell on his shoulder. He shrank away but decided not to expend any strength in resisting. Another hand took up his left arm. Pain shot through it, leaving him sweating. He uttered no sound. Then the pain faded as the hand rapidly injected the contents of a hypodermic needle. A calm, bearded face looked down at his own.

"Your arm is broken. Please lie quietly." The voice was low, softly modulated. There was no stern authority. Merely a quiet compulsion. His reaction was indifference. The attitude was familiar. He felt neither gratitude nor anger. Through the warped mazes of his mind his own voice struggled to speak.

"Where . . . where . . ."

The bearded man patted his shoulder.

"You will be taken care of. Please do not move."

He beckoned to the two other men in the room. They had hung motion-

less some yards away observing. Slowly they floated toward the couch and stared down at the fugitive.

Hatred, in a long streak, blazed acidly through Johannsohn's brain.

He struggled to rise.

"You hurt me," he said slowly.

The first man turned to the others.

"The broadcast said he wouldn't be violent. Anders, get me some vinotrol."

While the man addressed loped across the room, the former turned again to Johannsohn.

"You've put us to a lot of trouble."

He spoke partly to the fugitive, partly to himself. "If it hadn't been for the smell of your disgorged food coming through on the air-conditioning we'd never have found you at all."

"Jorel, here's the vinotrol. Don't inject too much."

The bearded man reached back without turning, took the proffered hypodermic.

"Now listen to me carefully, friend Johannsohn. You've got a nasty broken arm and we've got to fix it for you. Can you understand that?"

Johannsohn nodded sullenly. He kept flaming hatred out of his glance.

"And we've got to hurt you again. This vinotrol helps the bone to heal rapidly. It's for your own good."

Johannsohn made no sign of assent. His eyes clouded. His lips parted.

"Don't hurt me too much," he gasped slowly. In the back of his mind red rage flared high with spasmodic violence. For your own good, they said! The large head shook, trembled with silent anger. What did they know of his own good? How could they understand that he would prefer to lie there with his arm bone shattered and pain ripping through like lightning shreds? Pain was



noble. At least it was in the old books. Heroes with broken limbs clung to the gear of storm-battered ships and brought them home to safety. Rugged men of old clad in bloody armor charged at the head of victorious raiders through waves of slicing pain and coursed through blood to glory. Colored pictures danced in his eyes. Steel flashed in the strong hands of sturdy Vikings. The world was drowned in Johannsohn's battle cry. It was like the death-scream of a wounded tiger, flaming defiance and unconquerable hate.

**S**UDDENLY the men drew back. The madman's shriek pierced through to something deep and primeval within their souls. But Johannsohn was unaware. Clad in mail he rode through smoky mists over sterile ranks of grey-clad authority. He hated it. He conquered it.

The exhausted fugitive fell back, his brief moment of clarity vanished in wisps of mental fog.

Capable hands took hold of him, injected the vinotrol. Presently Johannsohn slept.

Soft music whispered through the control room. Johannsohn opened his eyes. Still bound. Still held to his prison couch like a tiger to its cage.

They fed him, a cup of beef synthextract that gave him slow strength. Again the mists swirled down. They looked at him a brief moment, then returned to their various occupations. The playing radio, the metallic voices of the control levers.

Johannsohn growled. Jorel, his fingers flying at a keyboard, looked up.

"Hungry?" he asked. "Carewe, give him a chocolate bar."

The answer to this was another growl. Johannsohn strained upward at his bonds.

Carewe, reading, held lightly to a chair by straps, looked suddenly grave.

"Better let him stretch a bit, Jorel. He's liable to resent being tied down. Those bonds can't hold forever."

Jorel nodded.

"I suppose we can let him loose for awhile," he replied, leaving the keyboard and shooting rapidly toward the couch. He leaned behind Johannsohn, loosened the bonds.

"Move, if you want to," he said to the fugitive, "but not too violently. There's no gravity. You've observed how carefully we push ourselves about. You'll bash in your head if you don't do the same."

Johannsohn's answer was a sudden explosion of energy. Pushing violently against the yielding fabric of the couch with doubled legs he planted his head sickeningly into Jorel's stomach. Jorel shot backward as though hurled from a cannon. His body, flying obliquely upward met a bent feed pipe with a crushing impact. In an instant his head was a bloody pulp. Little red droplets collected, floated about his body like satellites.

Anders' head came up with a jerk. He saw Johannsohn swing cunningly against the further wall, plant his feet and shoot like a rocket toward Carewe. Carewe, caught unawares, gave a great gasping sigh as the madman's rigidly extended right arm caught his head and snapped it over, breaking his neck instantly. His body floated slowly upward, a foot catching in a crevice in the chair, holding him like a captive balloon. The broken straps waved like water plants.

Johannsohn whirled. He glanced



around with mad lights dancing in his eyes. Anders, stunned, floating far from any vantage point, drifted helplessly. The fugitive brandished a short metal rod. He snarled, his lips twisting into a menacing grin.

"I will kill you, too," he cried, froth bubbling from between clenched teeth.

Anders did not move. Quietly he folded his arms.

"What is this ship?" demanded Johannsohn.

"A space freighter. Why do you want to know?"

Then all the repression of a dozen years was bursting through and Johannsohn laughed wildly.

"I own this ship . . . and I own you! Where is the steering control? How is the ship steered?"

Anders went white.

"All space vessels are steered on pre-determined, locked courses. The slightest deviation from the chart figures would mean being immediately lost in interstellar space." The words came slowly from trembling lips. "Certainly you would not destroy the ship?"

Johannsohn, drifting closer to him, grinned again.

"This is my ship now. How many other men are aboard?"

Anders shrugged his shoulders helplessly.

"No more. The vessel operates itself. A crew is required only for landing."

He backed away from the madman slowly, moving his feet like fins.

Johannsohn calmed. The wild light faded from his eyes. The up-raised arm clenching the metal bar fell to his side.

"Change the course," he said deliberately.

"Change . . . the . . . course?" Anders stared at the fugitive, "Do

you wish to die . . . out there?" He pointed to a porthole framing a solid black expanse of sky.

"I will not die," replied Johannsohn. "If you do not change the course I will kill you."

ANDERS stumbled, fell back against the wall. Dead, he thought, all of them, and now they would die too. Better to throw the ship into empty space than to allow it to crash unattended into the Martian deserts. More lives were at stake than were worth the broken scraps of a space freighter. Silently he moved to the keyboard, flicked a finger. With a surge of power the vessel responded. The two men swayed, their bodies dipping under the impulse.

"Where are we going?" asked Johannsohn. He allowed the metal bar to slip from his fingers.

Anders looked at him curiously, with a dead light in his eyes. He chuckled.

"I do not know."

Flexing his legs he shot toward a port, opened it with a single thrust of his arm, floated into a tubular corridor.

Johannsohn did not try to stop him. Mumbling to himself he followed.

After a while Anders pushed himself through another port into a domed room. Thousands of stars peered through curving glass panels.

Johannsohn came up behind him.

"Where are we going?" he demanded again. He spoke with a strong dignity, holding his injured arm tightly against his body. There was no pain in his eyes.

Anders looked back at him.

"Straight to that mythical hell of our ancestors, I suppose. Well, Johannsohn, what are you going to do



now? You're master of the ship. You can steer it by pulling those little levers back in the control room. Pull them any way you want. It doesn't matter much." He mused awhile, "Johannsohn . . . you can own space as long as the fuel holds out."

The other did not reply. He looked wildly down at his body, his fingers, his feet.

"It's a big ocean, that one," said Anders softly, "And you're the master of it all . . . for awhile."

"Yes." Again Johannsohn drew himself up firmly. He was master now. No more authority. No more compulsion. Space was his. The world. As far as he could see, searching the skies, blazing stars stretched ahead like giant torches lighting his way.

Then he whimpered. Pain, in

ragged streaks, shot through his leg where a blood vessel had burst.

"Pain?" asked Anders sympathetically. He laughed ironically. "A Viking of space can feel no pain, Johannsohn. Courage, warrior!" Then his face became grave. "The first space rover . . . and the last . . . What will you steal from heavy laden barks? What treasures will you transfer to your pirate hold? To what safe port will you bring your ship to anchor?"

He remained staring at the stars for a long time.

Unheeding, Johannsohn was living his moment. In this moment when around another's head the walls were tumbling. He swept his arm dramatically across the vast expanse of the mighty void.

"It was like this in the days of old," he said slowly.

## MEET THE LAVA NYMPH!



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# *Ambition*

**by Wilfred Owen Morley**

He stood upon the rim of time and whispered: night,  
Let me explore your face and know each wheeling star  
Upon it; let me plunge into the seas of light  
Which bathe strange worlds, unknown, in galaxies afar.  
And let me learn the baffling music of the spheres,  
And with these cosmic notes new melodies create  
That I may route with song the multitude of fears  
Which chain the human soul in endless war and hate.

For I shall go beyond . . . . Outside the mortal ken,  
Beyond the walls of time, the veils of life and death,  
And pluck forbidden fruits from trees unknown to men,  
And listen to eternity's last gasping breath.  
He sighed: my mad desires are vaster, far, than all  
Creation, although I am pitifully small.



all swell, but as for me—I'm from Missouri."

Standish took him in earnest.

"I'll try to prove it to you." He looked about the room, then motioned for silence. "Just be patient and wait for me to get my mind in order. Naturally it requires intensive concentration to think along these new lines." He leaned back in his chair, folded his hands on his lap, and stared up at the ceiling. He grew quieter and quieter and his brow furrowed in mighty effort.

His friend sat very still in his chair waiting for results. He watched Standish as the lines of concentration deepened, noticed that his eyes were fixed quite immutably upon a point far beyond the ceiling itself.

The room was very quiet. The soft inhales and exhales of the two men's breaths were clearly audible. Nothing else could be heard save perhaps that strange sound that suggests itself in utter silence. Minutes went by and still the men sat.

Standish looked down. He turned his head and looked again at his friend seated opposite him. Taking a deep slow breath, he let it out slowly and softly. Then he caught his fellow's eye and motioned silently to a corner of the room.

Seated opposite him, the man named Jones turned his head and looked long and wonderingly at the cluster of purple dandelions growing out of a crack in one far corner of the room.

## *The Rocket*

by DAMON KNIGHT

You may say what you choose about tight-fitting shoes  
And sharp cockle-burrs in the pocket;  
But for sheer lack of comfort you must give its dues  
To the torture-machine called a rocket.

If persistent and clear there's a noise in your ear,  
Till you'd much rather get out and walk it,  
That is only the jet-motor, back in the rear—  
They call it the Song of the Rocket.

They consider it fair to announce, "No more air!  
"We must all hold our breaths till we dock it."  
And if you protest they'll say, "What do you care?  
"It's all for the fame of the Rocket!"

And as for the hold, with meats old and cold  
And tinned beans and biscuits they stock it.  
When you ask for a steak without quite so much mold,  
They say, "Must conserve space on a Rocket!"

When I get my release, if I'm all in one piece,  
I shall take my space-license and hock it.  
And then I shall look, with a club and a kris  
For the man who invented the rocket.



# PURPLE DANDELIONS

by Millard Verne Gordon

A Cosmic Storiette

"**T**HOUGHT is force," said Standish, leaning his elbows on the table and staring over at Marlow. He waved a hand in the air, finger pointed to emphasize his words.

"Thought is force," he repeated. "And the most potent force in the world." He looked firmly at his friend. "In the entire universe I might say," he added as if to amplify his remarks.

Marlow leaned back to get away from that positive finger.

"You are too absolute in your statements. True, science has measured the energy of thought and has registered its passage in the form of weak electrical charges, but you carry it too far. Would you say that because I think a thing it must be so?" Marlow lifted his cigar to his mouth, a slightly disbelieving smile on his business-like countenance. Standish's lean face leaped to a quick smile.

"Yes," he answered at once with the ring of conviction. "Everything is thought. If I think a thing, it will be so." He stopped a bit to arrange his words.

"Consider," he continued, "real thought. Do not get the idea that if I were to suddenly think that I am seeing—well say purple dandelions growing in a corner of this room—or maybe that your name was Jones instead of Marlow—that it would be so. Just thinking in the shallow manner that man usually does is not absolute thought. It is mere image projection. We project up a series

of images or word-phrases, then look at them, add or subtract them, and call it thinking. It is not. Thinking is real. It is the application of energy to certain cells, the application of forces to our own physical machinery. And when real intense *trained* thought is put into use it is above all such juvenilities as images. The thought is the substance."

Marlow listened respectfully. "Easy enough to say," he remarked. "But is such thought as you speak of possible or, like most theories, mere hypothesis and conjecture?" He obviously didn't believe, Standish could see that.

Standish was quite serious when he spoke again.

"I believe that I have mastered the ability to think without imagery. I have been working on my own mental ability for several years now and though it was a difficult task I mastered my own ability. When I think of a thing it becomes that. Really becomes that as far as I or my world is concerned."

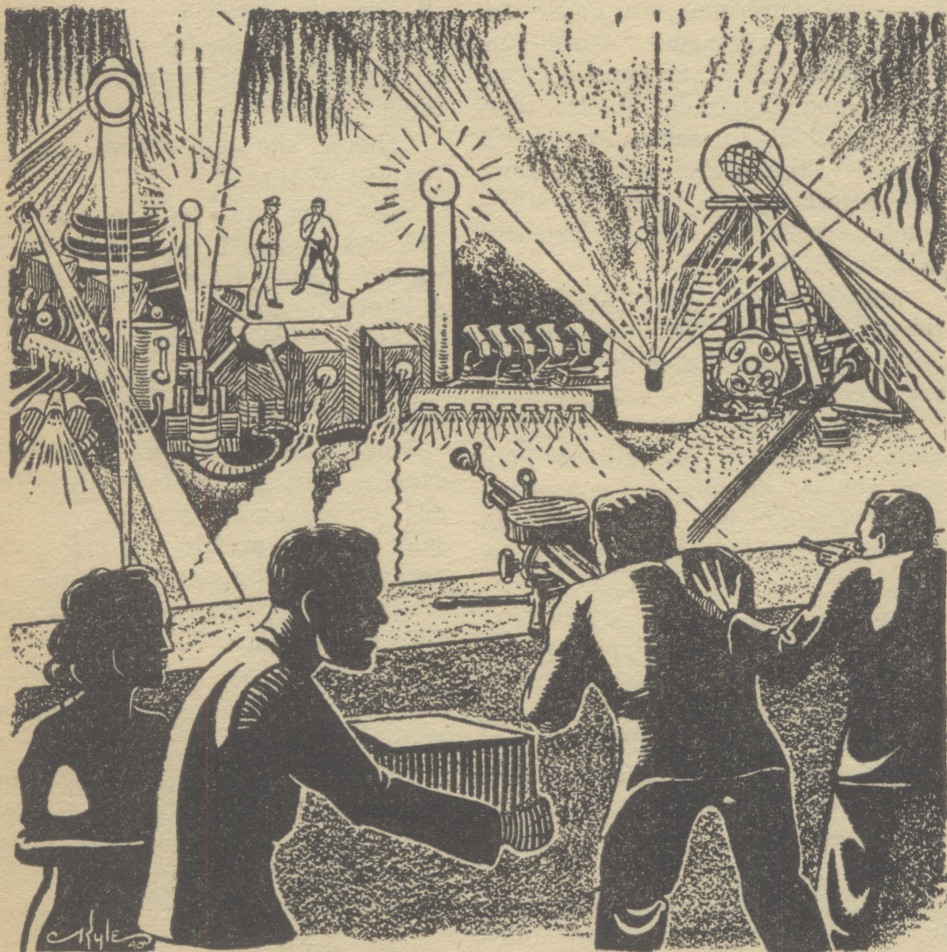
"Naturally that would call for a demonstration," was the skeptic's response. "You can't expect me to believe such a wild statement without factual proof. Let's suppose that you try out your powers now. You said something about visualizing purple dandelions — though why they couldn't as well be green or pink—for all the good it will do. Let's see these dandelions. And my name is still Marlow, you know. Always was and always will be. This theory is



# THE REVERSIBLE REVOLUTIONS

by Cecil Corwin

(Author of "Thirteen O'Clock," "The Fly-By-Nights," etc.)



He'd heard of revolution from the Left and from the Right, but soldier-of-fortune Battle didn't know what he was in for when he was hired by Sweetness & Light, the Revolution from Above!

**J** C. BATTLE, late of the Foreign Legion, Red Army, United States Marines, Invincibles De Bolivia and Coldstream Guards, alas Alexandre de Foma, Christopher Jukes, Burton Macaulay

and Joseph Hagstrom—*nee* Etzel Bernstein—put up his hands.

"No tricks," warned the feminine voice. The ample muzzle of the gun in his back shifted slightly, seemingly from one hand to another. Battle



felt his pockets being gone through. "Look out for the left hip," he volunteered. "That gat's on a hair-trigger."

"Thanks," said the feminine voice. He felt the little pencil-gun being gingerly removed. "Two Colts," said the voice admiringly, "a Police .38, three Mills grenades, pencil-gun, brass knuckles, truncheons of lead, leather and rubber, one stiletto, tear-gas gun, shells for same, prussic-acid hypo kit, thuggee's braided cord, sleeve-Derringer and a box of stink-bombs. Well, you walking armory! Is that all?"

"Quite," said Battle. "Am I being taken for a ride?" He looked up the dark street and saw nothing in the way of accomplices.

"Nope. I may decide to drop you here. But before you find out suppose you tell me how you got on my trail?" The gun jabbed viciously into his back. "Talk!" urged the feminine voice nastily.

"How I got on *your* trail?" exploded Battle. "Dear lady, I can't see your face, but I assure you that I don't recognize your voice, that I'm not on anybody's trail, that I'm just a soldier of fortune resting up during a slack spell in the trade. And anyway, I don't knock off ladies. We—we have a kind of code."

"Yeah?" asked the voice skeptically. "Let's see your left wrist." Mute-ly Battle twitched up the cuff and displayed it. Aside from a couple of scars it was fairly ordinary. "What now?" he asked.

"I'll let you know," said the voice. Battle's hand was twisted behind his back, and he felt a cold, stinging liquid running over the disputed wrist. "What the—?" he began impatiently.

"Oh!" ejaculated the voice, aghast. "I'm sorry! I thought—" The gun relaxed and Battle turned. He could

dimly see the girl in the light of the merc lamp far down the deserted street. She appeared to be blushing. "Here I've gone and taken you apart," she complained, "and you're not even from Breen at all! Let me help you." She began picking up Battle's assorted weapons from the sidewalk where she had deposited them. He stowed them away as she handed them over.

"There," she said. "That must be the last of them."

"The hypo kit," he reminded her. She was holding it, unconsciously, in her left hand. He hefted the shoulder-holster under his coat and grunted. "That's better," he said.

"You must think I'm an awful silly," said the girl shyly.

Battle smiled generously as he caught sight of her face. "Not at all," he protested. "I've made the same mistake myself. Only I've not always caught myself in time to realize it." This with a tragic frown and sigh.

"Really?" she breathed. "You must be awfully important—all these guns and things."

"Tools of the trade," he said non-committally. "My card." He handed her a simple pasteboard bearing the crest of the U. S. Marines and the simple lettering:

"LT. J. C. BATTLE  
SOLDIER OF FORTUNE—REVOLUTIONS A  
SPECIALTY"

She stared, almost breathless. "How wonderful!" she said.

"In every major insurrection for the past thirty years," he assured her complacently.

"That must make you—let's see —" she mused.

"Thirty years, did I say?" he quickly interposed. "I meant twenty. In case you were wondering, I'm just



thirty-two years old." He tweaked his clipped, military moustache.

"Then you were in your first at—"

"Twelve. Twelve and a half, really. Shall we go somewhere for a cup of coffee Miss—er—ah—?"

"McSweeney," she said. And added demurely, "But my friends all call me Spike."

"CHINA? Dear me, yes! I was with the Eighth Route Army during the celebrated Long Trek from Annam to Szechuan Province. And I shouldn't call it boasting to admit that without me—"

Miss Spike McSweeney appeared to be hanging on his every word. "Have you ever," she asked, "done any technical work?"

"Engineering? Line of communication? Spike, we fighters leave that to the 'greaseballs,' as they are called in most armies. I admit that I fly a combat fighter as well as the next—assuming that he's pretty good—but as far as the engine goes, I let that take care of itself. Why do you ask?"

"Lieutenant," she said earnestly, "I think I ought to tell you what all this mess is about."

"Dear lady," he said gallantly, "the soldier does not question his orders."

"Anyway," said Miss McSweeney, "I need your help. It's a plot—a big one. A kind of revolution. You probably know more about them than I do, but this one seems to be the dirtiest trick that was ever contemplated."

"How big is it?" asked Battle, lighting a cigarette.

"Would you mind not smoking?" asked the girl hastily, shrinking away from the flame. "Thanks. How big is it? World-scale. A world revolution. Not from the Right, not from the Left, but, as near as I can make out, from Above."

"How's that?" asked Battle, startled.

"The leader is what you'd call a scientist-puritan, I guess. His name's Breen—Dr. Malachi Breen, formerly of every important university and lab in the world. And now he's got his own revolution all planned out. It's for a world without smoking, drinking, swearing, arguing, dancing, movies, music, rich foods, steam heat—all those things."

"Crackpot!" commented the Lieutenant.

She stared at him grimly. "You wouldn't think so if you knew him," said Spike. "I'll tell you what I know. I went to work for him as a stenographer. He has a dummy concern with offices in Rockefeller Plaza and a factory in New Jersey. He's supposed to be manufacturing Pot-o-Klutch, a device to hold pots on the stove in case of an earthquake. With that as a front he goes on with his planning. He's building machines of some kind in his plant—and with his science and his ambition once he springs his plans the world will be at his feet!"

"The field of action," said Battle thoughtfully, "would be New Jersey principally. Now you want me to break this insurrection?"

"Of course!" agonized the girl. "As soon as I found out what it really was I hurried to escape. But I knew I was being followed by *his* creatures!"

"Exactly," said Battle. "Now what's in this for me?"

"I don't understand. You mean—?"

"Money," said Battle. "The quartermaster's getting shorthanded. Say twenty thousand?"

The girl only stared. "I haven't any money," she finally gasped. "I thought—"

"You thought I'm a dilettante?"



asked Battle. "Dear lady, my terms are fifty per cent cash, remainder conditional on the success of the campaign. I'm sorry I can't help you—"

"Look out!" screamed the girl. Battle spun around and ducked under the table as a bomb crashed through the window of the coffee shop and exploded in his face.

"**P**EN your eyes, damn you!" growled a voice.

"Stephen — the profanity —" objected another voice mildly.

"Sorry, doc. Wake, friend! The sun is high."

Battle came to with a start and saw a roast-beef face glowering into his. He felt for his weapons. They were all in place. "What can I do for you, gentlemen?" he asked.

"Ah," said the second voice gently. "Our convert is arisen. On your feet, Michael."

"My name is Battle," said the Lieutenant. "J. C. Battle. My card."

"Henceforth you shall be known as Michael, the Destroying Angel," said the second voice. "It's the same name, really."

Battle looked around him. He was in a kind of factory, dim and vacant except for himself and the two who had spoken. They wore pure white military uniforms; one was a tough boy, obviously. It hurt Battle to see how clumsily he carried his guns. The bulges were plainly obvious through his jacket and under his shoulder. The other either wore his more skillfully or wasn't heeled at all. That seemed likely, for his gentle blue eyes carried not a trace of violence, and his rumpled, pure white hair was scholarly and innocent.

"Will you introduce yourselves?" asked the Lieutenant calmly.

"Steve Haglund, outta Chi," said the tough.

"Malachi Breen, manufacturer of Pot-o-Klutch and temporal director of Sweetness and Light, the new world revolution," said the old man.

"Ah," said Battle, sizing them up. "What happened to Miss McSweeney?" he asked abruptly, remembering.

"She is in good hands," said Breen. "Rest easy on her account, Michael. You have work to do."

"Like what?" asked the Lieutenant.

"Trigger work," said Haglund. "Can you shoot straight?"

In answer there roared out three flat crashes, and Battle stood with his smoking Police Special in his hand. As he reloaded he said, "Get yourself a new lathe, Doctor Breen. And if you'll look and see how close together the bullets were—"

The old man pattered over to Battle's target. "Extraordinary," he murmured. "A poker-chip would cover them." His air grew relatively brisk and businesslike. "How much do you want for the job?" he asked. "How about a controlling factor in the world of Sweetness and Light?"

Battle smiled slowly. "I *never* accept a proposition like that," he said. "Twenty thousand is my talking point for all services over a six months' period."

"Done," said Breen promptly, counting out twenty bills from an antiquated wallet. Battle pocketed them without batting an eyelash. "Now," he said, "what's my job?"

"As you may know," said Breen, "Sweetness and Light is intended to bring into being a new world. Everybody will be happy and absolute freedom will be the rule and not the exception. All carnal vices will be forbidden and peace will reign. Now there happens to be an enemy of this movement at large. He thinks he



has, in fact, a rival movement. It is your job to convince him that there is no way but mine. And you are at absolute liberty to use any arguments you wish. Is that clear?"

"Perfectly, sir," said Battle. "What's his name?"

"Lenninger Underbottam," said Breen grinding his teeth. "The most unprincipled faker that ever posed as a scientist and scholar throughout the long history of the world. His allegedly rival movement is called 'Devil Take the Hindmost.' The world he wishes to bring into being would be one of the most revolting excesses—all compulsory, mark you! I consider it my duty to the future to blot him out!"

His rage boiled over into a string of expletives. Then, looking properly ashamed, he apologized. "Underbottam affects me strangely and horribly. I believe that if I were left alone with him I should—I, exponent of Sweetness and Light!—resort to violence. Anyway, lieutenant, you will find him either at his offices in the Empire State Building where the rotter cowers under the alias of the Double-Action Kettlesnatcher Manufacturing Corporation, or in his upstate plant where he is busy turning out not only weapons and defenses but his ridiculous Kettlesnatcher, a device to remove kettles from the stove in case of hurricane or typhoon."

Battle completed his notes and stowed away his memo book. "Thank you, sir," he said. "Where shall I deliver the body?"

"HELLO!" whispered a voice. "Spike!" Battle whispered back. "What are you doing here?" He jerked a thumb at the illuminated ground-glass of the door, and the leg-end "Double Action Kettlesnatcher

Manufacturing Corp., Lenninger Underbottam, Pres."

"They told me where to find you."

"They?"

"Mr. Breen, of course. Who did you think?"

"But," expostulated the Lieutenant, "I thought you hated him and his movement?"

"Oh, that," said the girl casually. "It was just a whim. Are you going to knock him off?"

"You mean Underbottam? Yes. Do you want to watch?"

"Of course. But how did you get here?"

"Climbed one of the elevator shafts. The night-watchman never saw me. How did you make it?"

"I slugged the guard and used a service lift. Let's go in."

Battle applied a clamp to the door-knob and wrenched it out like a turnip from muddy ground. The door swung open as his two Colts leaped into his hands. The fat man at the ornate desk rose with a cry of alarm and began to pump blood as Battle drilled him between the eyes.

"Okay. That's enough," said a voice. The Lieutenant's guns were snatched from his hands with a jerk that left them stinging, and he gaped in alarm as he saw, standing across the room an exact duplicate of the bleeding corpse on the floor.

"You Battle?" asked the duplicate, who was holding a big, elaborate sort of radio tube in his hand.

"Yes," said the Lieutenant feebly.

"My card—"

"Never mind that. Who's the dame?"

"Miss McSweeney. And you, sir, are—?"

"I'm Underbottam, chief of Devil Take the Hindmost. You from Breen?"

"I was engaged by the doctor for



a brief period," admitted Battle. "However, our services were terminated—"

"Liar," snapped Underbottam. "And if they weren't, they will be in a minute or two. Lamp this!" He rattled the radio tube, and from its grid leaped a fiery radiance that impinged momentarily on the still-bleeding thing that Battle had shot down. The thing was consumed in one awful blast of heat. "End of a robot," said Underbottam, shaking the tube again. The flame died down, and there was nothing left of the corpse but a little, fused lump of metal.

"Now. You going to work for me, Battle?"

"Why not?" shrugged the Lieutenant.

"Oke. Your duties are as follows: Get Breen. I don't care how you get him, but get him soon. That faker! He posed for twenty years as a scientist without ever being apprehended. Well, I'm going to do some apprehending that'll make all previous apprehending look like no apprehension at all. You with me?"

"Yes," said Battle, very much confused. "What's that thing you have?"

"Piggy-back heat-ray. You trans- pose the air in its path into an unstable isotope which tends to carry all energy as heat. Then you shoot your juice light, or whatever along the isotopic path and you burn whatever's on the receiving end. You want a few?"

"No," said Battle. "I have my gats. What else have you got for offense and defense?"

Underbottam opened a cabinet and proudly waved an arm. "Everything," he said. "Disintegraters, heat-rays, bombs of every type. And impenetrable shields of energy, massive and portable. What more do I need?"

"Just as I thought," mused the

Lieutenant. "You've solved half the problem. How about tactics? Who's going to use your weapons?"

"Nothing to that," declaimed Underbottam airily. "I just announce that I have the perfect social system. My army will sweep all before it. Consider: Devil Take the Hindmost promises what every person wants—pleasure, pure and simple. Or vicious and complex, if necessary. Pleasure will be compulsory; people will be so busy being happy that they won't have time to fight or oppress or any of the other things that make the present world a caricature of a madhouse."

"What about hangovers?" unexpectedly asked Spike McSweeney.

Underbottam grunted. "My dear young lady," he said. "If you had a hangover, would you want to do anything except die? It's utterly automatic. Only puritans—damn them!—have time enough on their hands to make war. You see?"

"It sounds reasonable," confessed the girl.

"Now, Battle," said Underbottam. "What are your rates?"

"Twen—" began the Lieutenant automatically. Then, remembering the ease with which he had made his last twenty thousand he paused. "Thir—" he began again. "Forty thousand," he said firmly, holding out his hand.

"Right," said Underbottam busily, handing him two bills.

Battle scanned them hastily and stowed them away. "Come on," he said to Spike. "We have a job to do."

**T**HE LIEUTENANT courteously showed Spike a chair. "Sit down," he said firmly. "I'm going to unburden myself." Agitatedly Battle paced his room. "I don't know where



in hell I'm at!" he yelled frantically.

"All my life I've been a soldier. I know military science backwards and forwards, but I'm damned if I can make head or tail of this bloody mess. Two scientists each at the other's throat, me hired by both of them to knock off the other—and incidentally, where do you stand?" He glared at the girl.

"Me?" she asked mildly. "I just got into this by accident. Breen manufactured me originally, but I got out of order and gave you that fantastic story about me being a steno at his office—I can hardly believe it was me!"

"What do you mean, manufactured you?" demanded Battle.

"I'm a robot, Lieutenant. Look." Calmly she took off her left arm and put it on again.

Battle collapsed into a chair. "Why didn't you tell me?" he groaned.

"You didn't ask me," she retorted with spirit. "And what's wrong with robots? I'm a very superior model, by the way—the Seduction Special, designed for diplomats, army-officers (that must be why I sought you out), and legislators. Part of Sweetness and Light. Breen put a lot of work into me himself. I'm only good for about three years, but Breen expects the world to be his by then."

"Why didn't you tell me?" asked Battle weakly. He sprang from his chair. "But this pretty much decides me, Spike. I'm washed up. I'm through with Devil Take the Hindmost and Sweetness and Light both. I'm going back to Tannu-Tuva for the counterrevolution. Damn Breen, Underbottam and the rest of them!"

"That isn't right, Lieutenant," said the robot thoughtfully. "Undeterred one or the other of them is bound to succeed. And that won't be nice for you. A world without war?"

"Awk!" grunted Battle. "You're right, Spike. Something has to be done. But not by me. That heat-ray—ugh!" He shuddered.

"Got any friends?" asked Spike.

"Yes," said Battle, looking at her hard. "How did you know?"

"I just guessed—" began the robot artlessly.

"Oh no you didn't," gritted the Lieutenant. "I was just going to mention them. Can you read minds?"

"Yes," said the robot in a small voice. "I was built that way. Governor Burly—faugh! It was a mess."

"And—and you know all about me?" demanded Battle.

"Yes," she said. "I know you're forty-seven and not thirty-two. And I know that you were busted from the marines. And I know that your real name is—"

"That's enough," he said, white-faced.

"But," said the robot, softly, "I love you anyway."

"What?" sputtered the Lieutenant.

"And I know that you love me too, even if I am—what I am."

Battle stared at her neat little body and her sweet little face. "Can you be kissed?" he asked at length.

"Of course, Lieutenant," she said. Then, demurely, "I told you I was a very superior model."

**T**O EXPECT a full meeting of the Sabre Club would be to expect too much. In the memory of the oldest living member, Major Breughel who had been to the Netherlands Empire what Clive and Warren Hastings had been to the British, two thirds—nearly—had gathered from the far corners of the earth to observe the funeral services for a member who had been embroiled in a gang war and shot in the back. The



then mayor of New York had been reelected for that reason.

At the present meeting, called by First Class Member Battle, about a quarter of the membership appeared.

There was Peasely, blooded in Tonkin, 1899. He had lost his left leg to the thigh with Kolchak in Siberia. Peasely was the bombardier of the Sabre Club. With his curious half-lob he could place a Mills or potato masher or nitro bottle on a dime.

Vaughn, he of the thick Yorkshire drawl, had had the unique honor of hopping on an axis submarine and cleaning it out with a Lewis gun from stem to stern, then, single-handed, piloting it to Liverpool torpedoing a German mine-layer on the way.

The little Espera had left a trail of bloody revolution through the whole of South America; he had a weakness for lost causes. It was worth his life to cross the Panama Canal; therefore he made it a point to do so punctually once a year. He never had his bullets removed. By latest tally three of his ninety-seven pounds were lead.

"When," demanded Peasely fretfully, "is that lug going to show up? I had an appointment with a cabinet-maker for a new leg. Had to call it off for Battle's summons. Bloody shame—he doesn't give a hang for my anatomy."

"Ye'll coom when 'e wish, bate's un," drawled Vaughn unintelligibly. Peasely snarled at him.

Espera sprang to his feet. "Miss Millicent," he said effusively.

"Don't bother to rise, gentlemen," announced the tall, crisp woman who had entered. "As if you would anyway. I just collected on that Fiorenza deal, Manuel," she informed Espera. "Three gees. How do you like that?"

"I could have done a cleaner job,"

said Peasely snappishly. He had cast the only blackball when this first woman to enter the Sabre Club had been voted a member. "What did you use?"

"Lyddite," she said, putting on a pale lipstick.

"Thot's pawky explaw-seeve," commented Vaughn. "I'd noat risk such."

She was going to reply tartly when Battle strode in. They greeted him with a muffled chorus of sighs and curses.

"Hi," he said briefly. "I'd like your permission to introduce a person waiting outside. Rules do not apply in her case for—for certain reasons. May I?"

There was a chorus of assent. He summoned Spike, who entered. "Now," said Battle, "I'd like your help in a certain matter of great importance to us all."

"Yon's t' keenin' tool," said the Yorkshireman.

"Okay, then. We have to storm and take a plant in New Jersey. This plant is stored with new weapons—dangerous weapons—weapons which, worst of all, are intended to effect a world revolution which will bring an absolute and complete peace within a couple of years, thus depriving us of our occupations without compensation. Out of self-defense we must take this measure. Who is with me?"

All hands shot up in approval. "Good. Further complications are as follows: This is only one world revolution; there's another movement which is in rivalry to it, and which will surely dominate if the first does not. So we will have to split our forces—"

"No you won't," said the voice of Underbottom.

"Where are you?" asked Battle, looking around the room.

"In my office, you traitor. I'm us-



ing a wire screen in your clubroom for a receiver and loudspeaker in a manner you couldn't possibly understand."

"I don't like that traitor talk," said Battle evenly. "I mailed back your money—and Breen's. Now what was that you said?"

"We'll be waiting for you together in Rockefeller Center. Breen and I have pooled our interests. After we've worked our revolution we're going to flip a coin. That worm doesn't approve of gambling, of course, but he'll make this exception."

"And if I know you, Underbottom," said Battle heavily, "it won't be gambling. What time in Rockefeller Center?"

"Four in the morning. Bring your friends—nothing like a showdown. By heaven, I'm going to save the world whether you like it or not!"

The wire screen from which the voice had been coming suddenly fused in a flare of light and heat.

Miss Millicent broke the silence. "Scientist!" she said in a voice heavy with scorn. Suddenly there was a gun in her palm. "If he's human I can drill him," she declared.

"Yeah," said Battle gloomily. "That's what I thought."

**T**HE whole length of Sixth Avenue not a creature was stirring, not even a mouse, as the six crept through the early-morning darkness under the colossal shadow of the RCA Building. The vertical architecture of the Center was lost in the sky as they hugged the wall of the Music Hall.

"When do you suppose they'll finish it?" asked Peasely, jerking a thumb at the boarding over the Sixth Avenue Subway under construction.

"What do you care?" grunted Bat-

tle. "We need a scout to take a look at the plaza. How about you, Manuel? You're small and quick."

"Right," grinned Espera. "I could use a little more weight." He sped across the street on silent soles, no more than a shadow in the dark. But he had been spotted, for a pale beam of light hissed for a moment on the pavement beside him. He flattened and gestured.

"Come on—he says," muttered Miss Millicent. They shot across the street and flattened against the building. "Where are they, Manuel?" demanded Battle.

"Right there in the plaza beside the fountain. They have a mess of equipment. Tripods and things. A little generator."

"Shall I try a masher?" asked Peasely.

"Do," said Miss Millicent. "Nothing would be neater."

The man with the wooden leg unshipped a bomb from his belt and bit out the pin. He held it to his ear for just a moment to hear it sizzle. "I love the noise," he explained apologetically to Spike. Then he flung it with a curious twist of his arm.

Crash!

Battle looked around the corner of the building. "They haven't been touched. And that racket's going to draw the authorities," he said. "They have some kind of a screen, I guess."

"Darling," whispered Spike.

"What is it?" asked Battle, sensing something in her tone.

"Nothing," she said, as women will.

"Close in under heavy fire, maybe?" suggested the little Espera.

"Yep," snapped Battle. "Oops! There goes a police whistle."

Pumping lead from both hips the six of them advanced down the steps



to the plaza, where Breen and Underbottam were waiting behind a kind of shimmering illumination.

The six ducked behind the waist-high stone wall of the Danish restaurant, one of the eateries which rimmed the plaza. Hastily, as the others kept up their fire, Vaughn set up a machinegun. "Doon, a' fu' leef!" he ordered. They dropped behind the masking stone.

"Cae oot, yon cawbies!" yelled Vaughn.

His only answer was a sudden dropping of the green curtain and a thunderbolt or something like it that winged at him and went way over his head to smash into the RCA Building and shatter three stories.

"Haw!" laughed Peasely. "They can't aim! Watch this." He bit another grenade and bowled it underhand against the curtain. The ground heaved and buckled as the crash of the bomb sounded. In rapid succession he rolled over enough to make the once-immaculate Plaza as broken a bit of terrain as was ever seen, bare pipes and wires exposed underneath. Underbottam's face was distorted with rage.

The curtain dropped abruptly and the two embattled scientists and would-be saviors of the world squirted wildly with everything they had—rays in every color of the spectrum, thunderbolts and lightning-flashes, some uncomfortably near.

The six couldn't face up to it; what they saw nearly blinded them. They flattened themselves to the ground and prayed mutely in the electric clash and spatter of science unleashed.

"Darling," whispered Spike, her head close to Battle's.

"Yes?"

"Have you got a match?" she

asked tremulously. "No—don't say a word." She took the match-pack and kissed him awkwardly and abruptly. "Stay under cover," she said. "Don't try to follow. When my fuel-tank catches it'll be pretty violent."

Suddenly she was out from behind the shelter and plastered against one of the tumbled rocks, to leeward of the worldsavers' armory. A timid bullet or two was coming from the Danish restaurant.

In one long, staggering run she made nearly seven yards, then dropped, winged by a heat-ray that cauterized her arm. Cursing, Spike held the matches in her mouth and tried to strike one with her remaining hand. It lit, and she applied it to the pack, dropping them to the ground. Removing what remained of her right arm she lit it at the flaring pack. It blazed like a torch; her cellulose skin was highly inflammable.

She used the arm to ignite her body at strategic points and then, a blazing, vengeful figure of flame, hurled herself on the two scientists in the plaza.

From the restaurant Battle could see, through tear-wet eyes, the features of the fly-by-night worldsavers. Then Spike's fuel-tank exploded and everything blotted out in one vivid sheet of flame.

"Come on! The cops!" hissed Miss Millicent. She dragged him, sobbing as he was, into the Independent Subway station that let out into the Center. Aimlessly he let her lead him onto an express, the first of the morning.

"Miss Millicent, I loved her," he complained.

"Why don't you join the Foreign Legion to forget?" she suggested amiably.

"What!" he said, making a wry face. "Again?"



# BIPED

by Basil Wells

(Author of "Rebirth of Man," "Winged Warriors," etc.)

It was a monster who came among those peaceful people, a monster that walked on two legs!

"**S**TRANGE MAN," spoke gray-bearded Nab Tul, Elder of N'voo Canyon, "we have come to a decision. Tonight you must choose what your fate will be. You must go to the Temple, where the priests of Urim and Thummim will destroy your monstrous body, or you must consent to have those useless lower limbs amputated.

"It is not good," he continued, "that a monster roam among us, affrighting our women and children. We of Nephi have come to like you. You are a good, though clumsy, worker in the corn fields and in the orchards.

"We hope you will decide to remain with us, for, despite your physical handicaps several of our young women have admitted a definite interest in you. One in particular," and he smiled.

I knew whom he meant very well—Inya Tul, his granddaughter. And I loved her too. We had planned to build a home somewhere in the canyon some time in the future. But now . . . !

**O**NLY two months before I had come drifting down into N'voo Canyon, an uncharted hidden oasis in the savage wastelands just north of the Four Corners along the Colo-

rado River, and landed beside a shady pool where Inya swam alone.

She had screamed and swum beneath a screening wall of willows, only her shapely shoulders and damp red curls thrusting out through that leafy covering. Never, in all the cities of Greater America, had I seen a more lovely face than hers. . . .

"Go away," she had cried. "I am bathing here."

"So I gather," I replied with a grin, and loosened the wide straps that harnessed me to my D grav cylinder. Carefully I moored my cylinder to a projecting branch of a nearby cottonwood tree and then turned my back.

"Go ahead," I shouted, "and jerk on your clothes."

Shortly afterward I heard her soft steps approaching and turned to meet her. I gasped. Never, in all the known world of the Twenty-second Century, had I beheld so lovely and feminine a girl as was Inya—yet she was but a half-woman!

From her waist down there was nothing, save a pair of shapeless withered feet, beneath her brief, woven-leather kilt!

Her firm, high-breasted bosom was confined by a laced jacket of pale gray homespun, and on her long, firm-fleshed brown arms were heavy



leather mittens. She walked, as would a normal person, on her two palms, placing one arm before the other as she proceeded; not like the usual legless cripple who hitches along on his stumps. Her walk was graceful and dainty like herself, and after the first moment of revulsion I was filled with admiration.

"Where do you come from, Monster?" she demanded angrily. "The priests of Urim and Thummim will hear of this. It is their duty to destroy such as you in infancy, and you are man-grown."

"I am from the outside world," I told her. "And my name is Morton Whipple. I was prospecting for gold and other precious metals here in Utah, pulling the D grav unit that I use to descend and ascend into the sheerest canyons, when I stumbled across your valley. Chance for some fresh cool water and food instead of this radio-transmitted hot water and sawdust, I told myself; so here I am."

"There is no world beyond this valley," the girl cried. "Only a desert of sun-baked rocks and looming red and yellow cliffs lies beyond."

I looked down at her and smiled. Apparently her people had been out of touch with the world for many years and had taught her nothing of civilization. (Many people have fled from the complexity of modern life into the wilderness, there to live the simple wholesome life of an earlier happier age.) Perhaps they had hidden here to shield her deformity from the world. . . .

So, while I weighted down my D grav cylinder with several hundred pounds of rocks until my return, the girl, Inya, told me of the valley and the thousand or more Nephites who lived there.

Many ages ago, she told me, strange, wicked beings, the Wolf

Hunters, she called them, had driven the Nephites into N'voo and sealed the outer pass forever. Then the power of the peepstones, Urim and Thummim, was called upon by the priests of the Temple and all the outer world blasted to a cinder.

And the Wolf Hunters, I learned, had long, sturdy legs even as did I! The Nephites, all of them, were legless!

No wonder she had called me a monster, I realized; slowly I began to piece together a true picture of what had happened many years before.

Banished here to this isolated canyon by the Mormon Wolf Hunters some time in the Nineteenth Century, these people had, through the course of many generations, weeded out all normal offspring by ruthlessly destroying them. Even as the children of six-fingered parents were likewise so afflicted, and armless parents often bore armless offspring, so these people ran true to their freakish heredity. . . .

**L**ATER Inya led me to the central village, her smooth strong arms carrying her along at a pace that taxed my legs, and shortly I was surrounded by a waist-high crowd of muttering human torsos. After a time her father, Nab Tul, led me away to his home and gave me food and a place to sleep.

After that, as I walked about the village or roamed the valley three or four armed men were always close by. When I walked or ran they were always beside or ahead of me, their great shoulder and arm muscles working as smoothly and powerfully as my own lower extremities.

They could spring across the irrigation ditches or brooks as easily as could I and in tests of strength they



could always best me. So, since I was so well guarded, I did not try to return to my D grav cylinder and escape. In a few days, I decided, when their vigilance had slackened, I would slip away to my cylinder, free it of excess weight, and float out of the valley again as I had come.

I had reckoned without Inya, however. Being with her every day soon made me forget my plan to leave the valley—I was in love!

So I worked with the legless men in their fields and made many friends among them. All thought of leaving the canyon and Inya was banished from my mind. We were planning a little cabin and . . .

“**I** MUST think it over,” I told Nab Tul. “Tonight after we have eaten I will give you my answer.”

The skin of my body was clammy with cold sweat as I staggered away up the valley to the distant corn fields where I was working. . . . Lose my legs, never to walk again? Creep along on my weak hands and the tender stumps of my legs?

I worked among the rustling yellow corn stalks that afternoon, my fellow-workers’ heads and squat torsos hidden among those dying rows; I tried to imagine how it would feel to be little more than three feet tall, and the flesh of my body crawled. . . . I shuddered and swung the corn-knife viciously, as though it were a machete, mowing down the leafy clumps of cornstalks about me.

My eyes ranged along the canyon—nine miles long and more than a mile in width; the winding emerald bands of willow, cottonwood, aspen and cedar along the narrow irrigation ditches and winding brooks; the upper slopes, terrace upon terrace, thick

with the dark green ranks of towering evergreen forests, and above it all the soaring, unscalable sheerness of the encircling iron-red walls and lofty, lemon-colored crags.

Further to the north, where a projecting wall of rock shouldered out into the valley, a narrow canyon—a deep cleft into ruined red cliffs tottering overhead—opened. It was there that I had landed beside the rocky pool where Inya and the other girls of the valley played and swam all through the summer.

And there, where I had concealed my D grav unit beneath the weight of many flat stones, I decided to go.

Forgotten now were Inya and our plans for the future. Only the blind urge to escape from this hellish valley and the mutilation that awaited me was in my mind. I looked about the field.

**T**HE nearest Nephite was a hundred yards away, half-hidden from me by the intervening rows of corn. Quietly then I bent down and slipped away through the field toward that looming red butte and the escape that awaited beyond its walls.

I left the shelter of the brown-leaved stalks several hundred feet further along the way, and went plunging away across muddy ditches and reddish rocky soil toward my goal. A thousand feet or more I raced ere my flight was discovered; then ten or twelve of the workers, unarmed save for the heavy corn-knives slung between their shoulder blades, came racing in long, prodigious bounds after me. Fast as I ran yet their muscular arms carried them at a swifter pace and they were rapidly overhauling me when I darted into the narrow side-canyon.



Some of them swung their long-armed bodies forward in mighty leaps; touched their grotesque withered feet to the ground momentarily, and swung forward again; while others ran as a man runs, their arms twinkling swiftly forward along the uneven ground.

They drew closer behind; two of them far in advance of the others shouted for me to halt at once, but I spurted onward faster than before. The grassy little glade beside the pool lay but a few feet ahead now.

But despair was in my heart. Before I could free the D grav of its burden of rocks, adjust the harness, and spring into the air, they would be upon me. Perhaps I could jerk my Z gun from the pack, however, and send its paralyzing bolts of electricity smashing into them.

Then I was beside my cache and the blood drained from my stricken brain for a moment. . . . The D grav and all my equipment was gone!

I turned to face the legless men, whipping the corn-knife from its sheath along my backbone, and leaping toward them. Better to go down fighting, I thought, than live on a crippled torso.

My first blow sheared through the wrist of Dav, fleetest of my pursuers, and then I was engaged in a duel with the other man. Now at last my superior height and ability to move about as I willed told in my favor and before his fellows could reach his side I had slashed down through his guard and laid open his shoulder to the collar-bone.

I turned, just in time, and my heavy knife sent Dav's blade—and two fingers of his remaining hand—

spinning. Then I dared a quick glance toward the empty cache and swore.

The D grav tilted upward from a sturdy cottonwood branch, the same one I had used before, and beneath the tree, clutching the mooring rope, sat Inya!

"Inya!" I cried. "You knew?"

"Yes, Morton," sobbed the girl. "I knew that you would not be willing to lose your legs even for me. And I love you too much to ask it."

I kissed her once, hastily, slashed at the mooring line and jumped upward with all my power. Upward shot the D grav, so swiftly that the flung knives of my pursuers fell far short. Then I was hooking my arms through the loops of my harness and fighting against the downward surge of gravity all the while.

At last my straps were buckled into place and I was drifting slowly downward once more out over the main valley. I dropped several chunks of rock from the ballast sack beside me to halt my descent and looked back toward the little glade beside the pool.

Inya was there, her eyes fixed sadly on me. I waved to her and she replied. Then she flung herself prone on the soft grass, her shoulders heaving convulsively as great sobs tore at her body.

My own eyes were not dry as I drifted higher and higher into the clear dry air above the canyon of N'voo.

Then I was above the weathered rimrock and splintered crags that hemmed in that fertile oasis, drifting slowly away on a hot breeze toward a world where men did not walk on their hands. . . .







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# NEW DIRECTIONS

by

Walter C. Davies

A VARIABLE star, for example, is behaving strangely. The observatories of the world buzz with speculation between the tedious routines of photography, computation, and analysis. The director of Mount Palomar Station issues orders:

"Memorandum to staff: you are to elect a maximum of five men to carry on the basic work of this observatory. All others will concentrate on Variable Callipyge M 5388."

Elaborate charts are prepared of the star's former rhythm contrasted with its new and eccentric periods. Spectroscopic tables reveal the anatomy of the star, strangely different from what it had been. Finally a report to the director: "I think we've done all we can, Chief; you send the stuff on."

And the stuff is sent on—to a man whose desk is piled high with abnormalities that crop out in the world's course. The medicos, it seems, have noticed a peculiar increase in both the frequency and violence of the common cold. Scores of children in North America alone have died in spasms of coughing.

"This," says the man at the crowded desk, "may be it." He compares dates and draws a tentative conclusion—that certain radiations reaching Earth from the Variable Callipyge have either inhibited re-

sistance or promoted the culture of the cold virus. He digs into his files of two years back and studies a dossier on di-electrics, the work of a young Argentine electronics technician.

Collating the medicos, the astronomers and the physicist, he sketches roughly the plans for a device like an oxygen tent. It will surround the patient with a counter-barrage of rays set to negate the wave-lengths of the radiations from Callipyge.

"Schedule for mass-production," he pencils at the bottom of the sketch. "Fifteen a day for three weeks." By that time, he estimates, the star will have settled down to normal. That is a day's work for—the Coordinator.

HE IS a figure that has not yet appeared on our horizon, yet he seems inevitable. The complexities inherent in science demand him. Today we find a peculiar sight before us—scores of branches of technology ever dividing, spreading further apart, the jargon of one department unintelligible to another.

There must be a translator—one who can take data and set up logical conclusions. With his help relations unknown to the present day will develop and even the most abstruse research need not wait a decade for the times to catch up with it.



## NEW DIRECTIONS

Perhaps he is the descendant of yesterday's "efficiency expert" or the "production engineer" of today; certainly there must be in his make-up the priceless drop of hard-headed practicality that transforms talent into genius.

The Coordinator is what we are pleased to call a New Direction—a different route out of the darkness. The problem of today is specialization once hailed as the mother of efficiency, now recognized as the parent of confusion as well.

**L**ITERATURE is the soul of a race, perhaps; if so its language must be its life-blood. The history of speech, in general, is one of consolidation of dialects. In thirteenth century England the Northern and Southern dialects were mutually unintelligible; the historical process set into operation at that time culminated about 1850 in the nearly complete acceptance by both regions of the Midlands speech, centering about London, as the standard of language.

On the larger scale—the consolidating or supplanting of national languages—the difficulties are greater. The New Direction taken by some to iron out the mutual resentment of a "foreigner" is the artificial language.

Perhaps the first of these was Alwato, the invention of an American cleric who was responsible also for Universology, an indescribable hash of science, philosophy, jurisprudence and asininity which had a mild vogue in the early nineteenth century. In 1880 Schleyer, a German priest, made public his Volapuk, an elaborately inflected synthesis of the Teutonic languages drawing its vocabulary mainly from English. Thus the

(Continued On Page 124)

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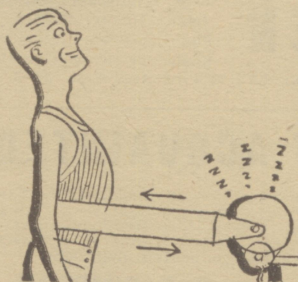


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## COSMIC STORIES

(Continued From Page 123)

name of the invention, meaning "world speech" is directly carried over from our language, but battered almost out of recognition. After a decade of publicity it settled down into cultism and is almost completely forgotten today.

Esperanto, developed later than Volapuk and so avoiding most of its mistakes, caught on nicely and is still booming. Advocated by its enthusiasts as a "second speech" for purposes of international communication and friendship, it is almost automatically resented by the average. Charges are brought against it that it is "soulless," "unvital," etc. Nevertheless it is simple and concise beyond any natural language; reading ability can be acquired in a phenomenally short time.

Esperanto has not yet gone far enough for us to judge, and there has been a schism of dissatisfied revisionists who expound Ido, a modified form of Esperanto. Perhaps there is a flaw at the base of any international language, but the clear advantages of this speech seem to indicate that it may be a New Direction out of enmity and war.

**E**VERY organism carries within itself the germs of its own destruction—this is as true of a science or a generation as of an animal. Conflict has been set up, in this case between obscurity and intelligibility. The strain results in an escape of forces into a different channel—a New Direction.

THE END





# THE COSMOSCOPE

**T**HE COSMOSCOPE is designed to serve as the voice of the readers. Here will be recorded comments and opinions on past issues; here will be recorded suggestions for future issues. A magazine is put out by one or two persons, but its success is dependent upon the advice of many. No matter how much theory or how much past experience one may think he has, it will never suffice to keep any magazine on the plane of quality and quantity its readers demand. That can only be done when readers do their part; when they write in their candid opinions of stories, articles, departments, art work, and the editors, their suggestions as to what they would do if they were editor, their ideas.

If there's something to kick about, kick! If there's something to praise, well, we're human and won't complain about a pat on the back. Anyway this department is here to record the opinion of the impartial reader.

The first issue of any such department is always difficult. No one has seen the magazine before, no one knows exactly what we are going to put out, even the editors never know what the magazine will actually look like till it's all off the presses and there's nothing they can do about it. Of course they do have *some* idea, but really . . . you never know. Anyway, we had to find some way of making up this department so we sent out notices of our forthcoming magazine and asked for letters. We turned up quite a lot of hopes, sug-

gestions, and bold opinions. We asked for it.

The first to reply was *Stafford Chan* of Darien, Conn. We recall him vaguely as a fan from years back. He says he has just returned from Egypt after having been away from America for several years. He goes on to say:

"When I left the States, promising myself to try to keep in touch with the fantastic pulps, there were three titles, each appearing monthly. Now I find that, of these three, little recognizable remains. One has become a veritable Eton snob; another has added an adjective to the title and subtracted everything of worth from its content; while a third has become so utterly nauseating that I cannot believe it. As for the new eruptions of magazines of this type, little can be said. I am reminded of nothing so much as the raucous din of the marts and bazaars of which tourists make so much. Despite the popular song, I cannot say that I care to go out in such a midday sun. . . .

"The general aim of this mass of incoherency, however, is to tell you that, despite the rather ludicrous titles, I am favorably impressed with what I hear of your new journals, and shall be waiting rather anxiously to put them to the test. You shall hear from me anon in regard to the results.

"Incidentally (I have run into this a number of times, so find it worth mentioning here), I might add that, having been a veritable Cartaphilus for some twenty-five years, I would not advise my fellow-enthusiasts to try to calculate my pedigree from my manner of putting words together. I am not a Britisher, Yank, or what have you. I'm a mongrel hybrid, what-



chacallit, and but definitely proud of it."

You worry us a bit, Mr. Chan. Could you be a mutant, perhaps? We hope you find this magazine coming up to your standards. They seem sort of odd. You speak of three magazines, one a snob presumably because it aims high, another is nauseating because it aims low, the last aims in between and has nothing of worth. What, then, do you want?

Next we hear from *Ray Garfield* of St. Louis, Mo.:

"The issuance of a new science-fiction magazine is a delicate business that should be handled with much thought. It should not be too much like any other magazine on the market. It should not be an imitation of some other magazine; even if that publication is successful, this is no excuse for copying it closely.

"You should try to keep your new mag different and novel. Even though there are other sf publications, *Cosmic Stories* should always act as if it considered itself unique. Try to get new artists; I am sure there must be dozens who can match the best in other magazines. Such men as Paul, Wesso, Finlay, Schneeman, Brown and Krupa are not indispensable; lots of new artists without stereotyped styles and sets can match these men. Newcomers like Bok, Forte, Streeter, Ghorp, Dun, Sherry and others new in 1940 have shown their speed; keep after them and new men.

"I hope you give new writers a break. I'm very sick of seeing the same old names parading over covers and contents pages; men who have long since written out their sparks of genius and now grind out stuff with the monotony and lack of originality of a sausage machine. New names—new ideas. I'll be watching for your first issue and hoping it doesn't turn out to be a carbon copy of all the rest."

We are giving new artists breaks as much as we can. But there's some-

thing you must bear in mind, Mr. Garfield. That is, an old artist can be relied upon to turn out a competent illustration the first time; a new artist is always a gamble and a risk. We're willing to take a chance and you'll note we are using new men like Hannes Bok, Roy Hunt and David A. Kyle. It's not so easy to get good material from new writers either. That's why so many old-timers keep turning up; their second rate material is often better written (if less original) than a newcomer's first-rate original stuff. But again you'll notice we are very open to new names and not at all fascinated by authors' reputations. We welcome manuscripts by newcomers.

Now comes a Tartar! *Jack Marcus* of Brooklyn replies to our request for letters with a blast:

"So you want a few words for the first appearance of the first letter column in *Cosmic Stories*? Well, here's those words and I hope to Great Klono, they're the last words you'll get—"Drop the Letter Column!" For years and years and years we poor suffering readers have had the inane remarks of various assorted cranks, rattle-brains and stuffed shirts flung in our faces at the end of every science-fiction magazine. Most of us have given up reading them, it's just so many waste pages to us. Who cares what a few kids who really want nothing but to get their names into print think? Is the science accurate? They write a long letter to say that some poor suffering writer has misplaced a decimal point. Is the story entertaining? They write in, using every adjective in the dictionary, to say so. Do they approve of a cover? They write reams. Do they approve of an editor? Oh, but yes, yes, yes. Never any disapproval of that! 'Our' magazine (hah!) has a great editor; the stories stink, the art stinks, the cover stinks, but the editor? No



## THE COSMOSCOPE

complaint. Pooley to these letters. Out with them! Dump the letter department and you'll have the best magazine of all."

We gather that you mildly disapprove of *The Cosmoscope* then. Seriously, there may be something in what you say. We had thought a letter department was virtually an essential; in the opening of this one, we tell why. We'll put it up to the readers. Is Mr. Marcus right? Shall we keep this section or "dump" it? Let's hear more on this.

Bob Tucker of Bloomington, Ill., sent us a long letter, ribbing us and which we suspect was not for publication. However, we have patched together items from his missive, and though it will probably rile Mr. Tucker, here they are:

"Yahhhh, yourself! I already know all about your new magazine. . . . So you're going to call it *Cosmic Stories*, huh? What a hell of a pooppy name. If you can't do better than that, you must be an outer-circle fan! How about calling the magazine *Confounding Stories*, or *Bombastic Tales*, or *Bugeyed Stories*? I like that last one! . . . What the hell, congratulations are so boring and meaningless! I'll just say that I am damn glad for you! Damn glad! Now maybe we can get a pro magazine run to suit me! By golly, you had better read my story! Let's see now—I think it would look nice on a box down in the left-hand corner of your first cover, with of course, the selling angle: 'By Bob Tucker,' in large letters. Just think how many copies of that issue will whiz off the Bloomington newsstands! I got lots of relatives. . . . How about some humor? Say a column every issue along the lines of 'Poor Pong's Almanac,' or a burlesque gossip column. Aw well, don't curl your lip like that, I can suggest it, can't I? . . . I hope to hell the magazine goes over with accent on humor and fantasy! That's what we fans want, you

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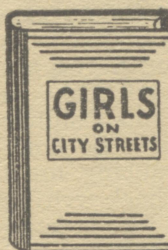
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Sam K. Goldman of Boston, Mass., sounds off:

"I was pleased to read in *F. F. F. News Weekly* that you are to edit two new magazines. I hope that you try to keep them on a high level. Please do not make the practice of buying stories just because there's a big name attached to it. That is a very misleading idea on the part of editors. These supposedly big writers are really only known to a few thousand fans and not to the general readers. Good art work and good clear printing will sell thousands of more readers than just big names. Most people don't care much who writes the stories, it's the appearance and illustrations that sell the magazine. And if your stories are good, the magazine will keep on selling regardless of how familiar the authors' names are. So don't get panicked into grabbing up a lot of old rejects and hack writing that's floating around just because there's a big name attached to it."

The editors have been of the same opinion as regards the lure of big names, though we aren't so positive as you. Time will tell.

Here comes a sharp note from Arthur Henshaw of Columbus, Ohio:

"I hope to heaven you aren't one of those Esperanto nuts that delight in filling up a science-fiction mag with addle-pated letters raving about their particular brand of home-made gibberish. Esperanto will no more be the language of the future than Nazi German will

be. Keep your magazine a fiction magazine and keep the cranks out of it! And I hope you can manage to keep the scientist's daughter, the handsome young inventor, and the sinister Martian spy outside of your pages. And if you start editing stories down to kindergarten level, so help me, I'll come to New York, if I have to walk all the way and strangle you with my bare hands!"

We shall live in terror from now on. We'll let Mr. Henshaw take care of the response to his letter. We suspect that it'll be plenty! Lastly we hear from *Graham Conway* of Waterloo, Indiana:

"I would like to see you use more short stories and less novels and novelets. In the past years there has been a steady trend towards the alleged "book-length" novel in each issue of a magazine. Sometimes they print these in small eye-racking type and expect them to be read. Those that I have read, I have rarely liked, and aside from that, I think they are unfair to the reader.

"With a whole batch of short stories, readers are sure to find something they'll like a lot. You know a good story that can stir up the mind to dreaming and thinking for hours is what makes a magazine. One good story per reader can redeem and sell any magazine, and I think your chances of having such a story will improve with the number of titles in each issue and decrease with the number of novels an issue.

"Authors I would like to see are Manly Wade Wellman, Robert Heinlein, S. D. Gottesman, Jack Williamson, David H. Keller, P. Schuyler Miller, Harry Walton, and Philip M. Fisher. Authors I would not like to see are Eando Binder, Gordon A. Giles, Dennis Clive, Don Wilcox, John Coleridge, Ray Cummings, and David Wright O'Brien.

"I prefer stories whose emphasis is less on action and more on character and background. A novel twist, clever theme, or a good bit



of extra-terrestrial description can make a story for me. I dislike intensely the hackneyed space-pirate, interplanetary dog-catcher, or Wild West on Mars stuff.

"One more word: Please use literate terminology for the names of planet dwellers. Let's have no Mercutians, Venutians, Plutians, Jupiterians or Terrestrials running around. There are more accurate terms."

In some ways, we tend to follow your advice on the number of stories an issue. Concerning Mercutians, so many writers and not a few editors seem to think that because Martian is spelled with a T, the rest must be. We won't make that mistake.

Don't forget, we want your opinions on this issue and on any other thing you think should interest us. So don't fail to write us that letter. Just address it to the Editor, *Cosmic Stories*, 19 East 48th Street, New York City. We'll be seeing you again March first!

—DAW.

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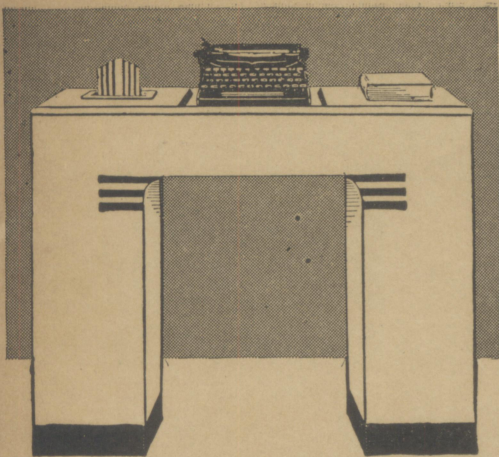
# Fantasy Fan Magazines

COSMIC STORIES will review as many as it can of the numerous amateur magazines put out by fans and fan groups all over the world. We invite fan publishers to send us copies regularly as a service to our readers. . . . SPACEWAYS (303 Bryan Pl., Hagerstown, Md.) is a neat 26 page mimeographed magazine considered one of the best in the field. The October issue features an amount of material on the Chicago Convention, principally by Bob Tucker and "The Star Treader." Walter Sullivan takes fans behind the scenes in New York with notes from his diary. . . . THE COMET (Tom Wright, 1140 Bush Ave., Martinez, Cal.) appears again with an excellent 30 page magazine. We thought Jack Robins' article "Some Eastern Stf Events" to be quite competent and worthwhile. Many other items, a short story "Lure of the Flute" by John Reitrof, articles by Harry Warner, James Tillman, and Lew Martin, art work by Bok and Bronson, make THE COMET outstanding. . . . The Solaroid Club (9 Bogert Pl., Westwood, N. J.) publishes SUN SPOTS as their official organ. The magazine is beginning to shape up nicely but could stand better mimeographing and grammar. Carries a considerable amount of fiction and humor by members. Feature item is Manly Wade Wellman's "There May be Werewolves." . . . LE ZOMBIE (Box 260, Bloomington, Ill.) at once the maddest and best liked fan magazine, devotes its November issue to the Chicago Convention. Dale Tarr and Bob Tucker do the honors. Famed for its short paragraphic comments. . . . Los Angeles is famous for the variety and off-trail nature

of its publications. The latest is boldly titled THE DAMN THING! (Box 6475, Met. Stat., L. A., Cal.) and is edited by the caustic T. Bruce Yerke. It has an air of bravado about it we like. Damon Knight tilts lances with the "Pro-Science" movement, various others lambaste Los Angeles, Ackerman, and New Fandom. It lives up to its title and we love it. . . . Oldest fan magazine in existence is the six year old PHANTAGRAPH (Apt. 7A, 244 W. 74th St., N. Y. C.) whose latest issue features Futurian verse, articles, and curious fiction by Robert W. Lowndes, Dick Wilson, Dale Hart, Leslie Perri, John Michel, and others. . . . C.F.S. REVIEW is the new organ of the Colorado Fantasy Society (1258 Race St., Denver) which was formed for the purpose of organizing the 1941 Denver Science Fiction Convention. It carries news and announcements on the C.F.S. and the coming convention. We urge its support. . . . From the bottom of the world comes the 20th issue of FUTURIAN OBSERVER (10a Sully St., Randwick, Sydney, Australia) a news magazine which records the doings of Australia's very active little fan world. A listing of Antipodean fan magazines reveals six titles. . . . From war-torn Britain appears the last regular fan magazine from the embattled British fan world. The title is FUTURIAN WAR DIGEST and the dogged publisher is J. M. Rosenblum (4, Grange Ter., Chapeltown, Leeds 7, England). Its eight pages are mainly filled with news of American and British science-fiction and discussion anent the war. Announces death of fan Ted Wade in the R.A.F. and the call to arms of author William F. Temple.







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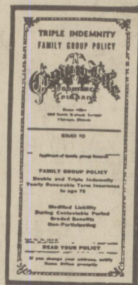
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